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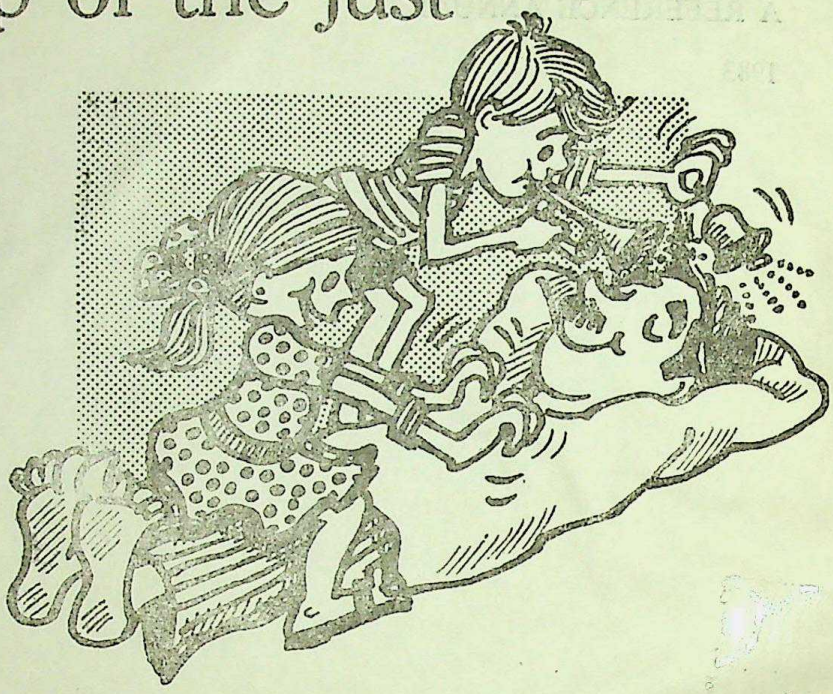
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PREFACE

India 1983 is the twenty-ninth issue of the Reference Annual, compiled and edited by the Research and Reference Division of the Ministry of Information and Broadcasting. The Annual contains information on diverse aspects of India's national life and activities and attempts to describe the machinery of government and various institutions. It also documents the initiatives and progress achieved in various spheres.

The publication is useful to all interested in information on India. It is now an established work of reference, useful to scholars, students, officials, journalists, academicians, professionals and others. Each chapter is revised annually and (within the limits of space) every effort is made to provide information as clearly as posible. However, in the nature of things, a Reference Annual, which takes about ten months from the collection of meterial to final printing, cannot be completely up-to-date and fully comprehensive.

This year three new chapters, namely, Sports, India and the World and General Information have been added. Broadly, the text covers information up to the end of March 1983. However, changes for updating figures and information have been made, wherever absolutely necessary. The chapter on Diary of Events covers important happennings during 1982 from January to December.

For the convenience of the readers, seeking more details on specific topics, a bibliography is given at the end of the book.

Information in this Annual is compiled from official and other authentic sources with the cooperation of the central ministries/departments, state governments/union territory administrations and other organisations.

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KEY TO NUMERATION

1 lakh	=	One hundred thousand
10 lakh	=	1 million
1 crore	=	10 million

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BURMA
SRI LANKA
INDIA
JAMMU AND KASHMIR
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SIMLA
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BAY OF BENGAL
ANDAMAN SEA
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AGARTALA
TRIPURA
MIZORAM
AIZAWL
Muzaffarpur
Darbhanga
PATNA
Monghyr
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Bhagalpur
Gaya
BIHAR
WEST BENGAL
Dhanbad
Bokaro
Durgapur
Asansol
Burdwan
Ranchi
Jamshedpur
Kharagpur
CALCUTTA
KBK

CAPITAL OF THE COUNTRY
CAPITAL OF STATE/UNION TERRITORY
TOWNS AND TOWN AGGLOMERATIONS WITH POPULATION OVER ONE LAKH (1971 Census)
INTERNATIONAL BOUNDARY
STATE BOUNDARY
DNH DADRA AND NAGAR HAVELI
G D & D GOA, DAMAN AND DIU
MEGH MEGHALAYA
P PONDICHERRY

The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

Based upon Survey of India map with the permission of the Surveyor General of India.

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1 LAND AND THE PEOPLE

India is the seventh largest country in the world. It is well-marked off from the rest of Asia by mountains and the sea, which give the country a distinct geographical entity. Bounded by the great Himalayas in the north, it stretches southwards and at the Tropic of Cancer, tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west. It covers an area of 32,87,263[1] sq km.

Lying entirely in the northern hemisphere, the mainland extends, between latitudes 8°4′ and 37°6′ north and longitudes 68°7′ and 97°25′ east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of about 15,200 km. The total length of the coastline of mainland, Lakshadweep Group of Islands and Andaman and Nicobar Group of Islands is 7,516.5 km.

PHYSICAL BACKGROUND

The Himalayas and other lofty mountains—Muztagh Ata, Aghil and Kunlun mountains to the north of Kashmir and south-eastern portion of Zaskar mountains to the east of Himachal Pradesh— form India's northern boundary, except in the Nepal region. She is adjoined in the north by China, Nepal and Bhutan. A series of mountain ranges in the east separate India from Burma. Also in the east, lies Bangladesh bounded by the Indian states of West Bengal, Assam, Meghalaya, Tripura and Mizoram. In the north-west, Afghanistan and Pakistan border on India. The Gulf of Mannar and the Palk Strait separate India from Sri Lanka. The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea are parts of the territory of India.

Physical Features

The mainland comprises four well-defined regions, namely, the great mountain zone, plains of the Ganga and the Indus, the desert region and the Southern Peninsula.

[1]Provisional, as on 31 March 1982.

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The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys some of which, like the Kashmir and Kullu Valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges. The high altitudes limit travel only to a few passes, notably the Jelep La and Oatu La on the main Indo-Tibet trade route through the Chumbi Valley, north-east of Darjiling and Shipki La in Satluj Valley north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Burma and India and Bangladesh, the hill ranges are much lower. The Garo, Khasi, Jaintia and Naga hills, running almost east-west, join the chain of the Mizo and Arakan hills running north-south.

Plains of the Ganga and the Indus, about 2,400 km long and 240 to 320 km broad, are formed by the basins of three distinct river systems—the Indus, the Ganga and the Brahmaputra. They are one of the world's greatest stretches of flat alluvium and also one of the most densely populated areas on earth. There is hardly any variation in relief. Between the Yamuna at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

The desert region can be divided into two parts—the 'great desert' and the 'little desert'. The 'great desert' extends from the edge of the Rann of Kachchh beyond the Luni river northward. The whole of Rajasthan-Sind frontier runs through this. The 'little desert' extends from the Luni between Jaisalmer and Jodhpur up to the northern wastes. Between the great and little desert lies a zone of absolutely sterile country, consisting of rocky land cut up by limestone ridges. Due to absence of surface water and very scanty rainfall the region is almost absolutely sterile.

The Peninsular plateau is marked off from the plains of the Ganga and the Indus by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Aravalli, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on one side by the Eastern Ghats, where the average elevation is about 610 metres and on the other by the Western Ghats, where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between the Eastern Ghats and the Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri hills where the Eastern and Western Ghats meet. The Cardamon hills lying beyond may be regarded as a continuation of the Western Ghats.

Geological Structure

The geological regions broadly follow the physical features and may be grouped into three well-defined regions : the Himalayas and their associated group of mountains, the Indo-Gangetic Plain and the Peninsular Shield.

The Himalayan mountain belt to the north and the Naga-Lushai mountains in the east are the regions of mountain building movement. Most of this area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions about 60 crore years ago. In a series of mountain building movements commencing about seven crore years ago, the sediments and the basement rocks

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rose to great heights. The weathering and erosive agencies worked on these to produce the relief seen today.

The Indo-Gangetic plains are a great alluvial tract that separates the Himalayas from the Peninsula to the south. The sedimentary deposits of the tract belong to the latest chapter of the earth's history and conceal beneath them the southern fringes of the Himalayan formations and the northern fringes of the Peninsular formations. The thickness of the sedimentary cover in this tract exceeds 6,000 metres, at places.

The Peninsula is a region of relative stability and rare seismic disturbances. Highly metamorphosed rocks of the earliest periods, dating back as far as 30 crore to 60 crore years occur over more than half of its area; the rest being covered by the coal bearing Gondwana formations, lava flows belonging to the Deccan Trap formation and younger sediments.

River Systems

The rivers in India may be classified as : (i) Himalayan rivers, (ii) Peninsular rivers, (iii) coastal rivers, and (iv) rivers of the inland drainage basin.

The Himalayan rivers are generally snow-fed and have reasonable flow throughout the year. During the monsoon months, the Himalayas receive very heavy rainfall and the rivers discharge the maximum amount of water causing frequent floods. The Peninsular rivers are generally rain-fed and, therefore, fluctuate in volume. A large number of streams are non-perennial. The coastal streams, specially of the west coast, are short in length and have limited catchment areas Most of them are flashy and non-perennial. The streams of the inland drainage basin of western Rajasthan are few and far between. Most of them are of an ephemeral character. They drain towards the individual basins or salt lakes like the Sambhar or are lost in the sands, having no outlet to the sea. The Luni is the only river of this category that drains into the Rann of Kachchh.

The Ganga basin which is a part of the larger Ganga-Brahmaputra-Meghana basin is the largest in India receiving waters from an area which comprises about one-quarter of the total area of the country. Its boundaries are well-defined by the Himalayas in the north and the Vindhya mountains in the south. The Ganga has two main headwaters in the Himalayas : the Bhagirathi and the Alaknanda, the former rising from the Gangotri glacier at Gomukh and the latter from a glacier short of the Alkapuri glacier. The Ganga is joined by a number of Himalayan rivers including the Yamuna, Ghaghra, Gandak and Kosi. The western-most river of the Ganga system is the Yamuna, which rises in the Yamnotri glacier and joins the Ganga at Allahabad. Among the important rivers flowing north from central India into the Yamuna/Ganga are the Chambal, Betwa and Sone.

The Brahmaputra and the Barak flowing from east to west in the north eastern region are international rivers and have immense water resources potential which is still in the initial stages of development,

The Godavari has the second largest river basin in the country covering ten per cent of the area of India. The Krishna basin is the second largest in Peninsular India. The Mahanadi has the third largest basin in the Peninsula. The basins of the Narmada in the uplands of the Deccan flowing to the Arabian Sea and of the Cauvery in the south discharging into the Bay of Bengal are of about the same size, though of different character and shape.

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Two other river systems, which are small but agriculturally important, are those of the Tapi in the north and Penner in the south.

Climate

The climate of India may be broadly described as tropical monsoon type. There are four seasons in India : (i) winter season (January-February), (ii) hot weather season, summer (March-May), (iii) rainy season, south-western monsoon period (June-September), and (iv) post-monsoon period, known also as north-east monsoon period in the southern Peninsula (October-December).

In India, rainfall is erratic and ill-distributed. It varies from place to place and year to year. However, there are four broad climatic regions based on rainfall. Practically the whole of Assam and its neighbourhood, the Western Ghats and the adjoining coastal strip and parts of the Himalayas are areas of very heavy rainfall with more than 2,000 millimetre of annual rainfall. Some places in the Khasi and Jaintia hills of Meghalaya receive the heaviest rainfall in the world. Cherrapunji gets 11,419 mm of annual rainfall, the highest in the country. In contrast, Rajasthan, Kachchh and the high Ladakh plateau of Kashmir extending westward to Gilgit are regions of low precipitation. They have a yearly rainfall between 100 and 500 mm. Between these rainfall extremes, there are two areas of moderately high and low rainfall ranging from 1,000 to 2,000 mm and 500 to 1,000 mm. The former is a broad belt in the eastern part of the Peninsula, extending northward to the north India plains and the latter runs from the Punjab plains across the Vindhya mountains into the western part of the Deccan, extending further south and east to Karnataka and Andhra Pradesh.

While the rainy season in most parts of the country is from June to September, in Tamil Nadu it is during October-December.

Fauna

Possessing a tremendous diversity of climate and physical conditions, India has a great variety of fauna. There are about 350 species of mammals and 1,200 species of birds in the country. There also exist more than 30,000 different species of insects, apart from a great variety of fishes and reptiles.

The mammals include elephant, associated in India from time immemorial with mythology and the splendour of her regal pageantry, the *gaur* or Indian bison, Indian buffalo, *nilgai, chousingha* or four-horned antelope (unique to India) black buck or Indian antelope, *ghor-khur* or Indian wild ass (restricted to the Rann of Kachchh) and great one-horned rhinoceros (now confined to eastern India). There are also several species of deer, *viz.,* the rare Kashmir stag, swamp deer, spotted deer, musk deer, *thamin* or brow-antlered deer (found in Manipur) and mouse deer.

Among the animals of prey are the Indian lion, the only lion to be found in the world outside Africa. The tiger, which is the national animal, numbers about 3,000. The general decline in its number in recent years has led to the launching of 'Project Tiger', a scheme financed by the Government of India to safeguard the tiger, its prey and its habitat, in eleven selected areas. Four additional reserves are being taken up in 1983-84 under this project thus making a total of 15 tiger reserves in the country. Among other cats are the leopard, clouded leopard, the snow-leopard and various species of smaller cats.

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Several species of monkeys and *langurs* are common. The only ape found in India, the hoolock, is confined to the rain forests of the eastern region. The lion-tailed macaque, with a halo hair around the face, is found in the south.

Bird life in India is very rich and colourful. The peacock is the national bird. Several other birds like the pheasants, geese, ducks, mynahs, parakeets, pigeons, cranes, hornbills and sunbirds inhabit the forests and wet lands.

The rivers and lakes harbour crocodiles and *gharials,* the latter being the only representative of a crocodilian order in the world. The salt water crocodile is found along the eastern coast and in the Andaman and Nicobar Islands. A project for breeding crocodiles with United Nations Development Programme assistance, started in 1974. has been instrumental in saving the crocodile from extinction and increasing their population to about 3,000. Twelve schemes are in operation in different states for breeding of crocodiles and releasing them in the wild.

The great Himalayan range has a very interesting fauna and include wild sheep and goats, the markhor, the ibex, the serow and the takin. The lesser panda and the snow-leopard are also to be found in the upper reaches of the mountains.

The Wild Life (Protection) Act, 1972, adopted by all the states except Jammu and Kashmir (which has its own Act), governs the wild life conservation and protection of endangered species both inside and outside forest areas. Under this Act, trade in rare and endangered species has been banned.

India is also a signatory to the Convention on International Trade in Endangered Species of Wild Flora and Fauna. Under this, export or import of endangered species of fauna and flora are subject to strict control and commercial exploitation of such species is prohibited.

There are at present 45 national parks, 211 wild life sanctuaries and 35 zoological gardens in the country. State governments are given financial aid for improvement and development of national parks and sanctuaries.

Flora

India with its wide range of climatic conditions—from the torrid to the arctic—has a rich and varied vegetation, which few other countries of comparable size possess. India can be divided into eight distinct floristic regions, namely, western Himalayas, eastern Himalayas, Assam, Indus plain, Gangetic plain, Deccan, Malabar and Andamans.

The western Himalayan region extends from Kashmir to Kumaon. The temperate zone of the region is rich in forests of chirpine, other conifers and broad-leaved temperate trees. Higher up, forests of *deodar,* blue pine spruce and silver fir occur. The alpine zone extends from the upper limit of the temperate zone to about 4,750 metres or even higher. The charcteristic trees of this zone are the high level silver fir, silver birch and junipers.

The eastern Himalayan region extends from Sikkim eastwards and embraces Darjiling, Kurseong and the adjacent tract. The temperate zone of the region has forests of oaks, laurels, maples, rhododendrons, alder and birch; many conifers, junipers and dwarf willows also occur. The Assam region comprises the Brahmaputra and Surma Valleys and the intervening hill ranges. The vegetation is luxuriant with evergreen forests, occasional thick clumps of bamboos and tall grasses.

The Indus plain region comprises the plains of Punjab, western

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Rajasthan and northern Gujarat. This region is dry and hot and supports scanty natural vegetation.

The Gangetic plain region covers the area from Aravalli ranges to Bengal and Orissa. A greater part of the area is alluvial plain and is under cultivation for wheat, sugarcane and rice. Only small areas support forests of widely differing types.

The Deccan region comprises the entire tableland of the Indian Peninsula, and supports vegetation of various kinds from scrub jungles to mixed deciduous forests.

The Malabar region covers the excessively humid belt of mountain country running parallel to the west coast of the Peninsula. This region, besides being rich in forest vegetation, produces important commercial crops, such as, coconut, betelnut, pepper, coffee and tea. Rubber, cashewnut and eucalyptus trees have also been successfully introduced in some parts of this region.

The Andaman region comprises the Andaman and Nicobar Islands. It abounds in evergreen, semi-evergreen, mangrove, beach and diluvial forests.

The Himalayan region from Kashmir to Arunachal Pradesh through Nepal, Sikkim and Bhutan and Meghalaya, Nagaland and the Deccan Peninsula are rich in endemic flora, i.e., a large number of plants found in these regions are still restricted to these endemic centres and are not found elsewhere. The number of species of flowering plants in the country is about 15,000.

The interesting and useful flora of the country is being studied in detail by botanists of the Botanical Survey of India (BSI) and some other institutions. The publication of a new *Flora of India* in the form of fascicles has been initiated by BSI and 11 fascicles have so far been published.

Owing to the destruction of forests for agricultural, industrial and urban development, several Indian plants are facing extinction. Samples of some of these rare plants are being preserved in botanical gardens and national parks. Collections of dried samples of these plants are preserved in the Central National Herbarium, Calcutta, the regional herbaria of the BSI and in other research and teaching institutions of the country.

DEMOGRAPHIC BACKGROUND

Census

The first all-India census, though not synchronously taken, was completed in 1872. Since 1881, the census in India has been taken regularly every ten years. The latest in 1981 marked the completion of 110 years of decennial census taking in the country. The enumeration was conducted between 9 February 1981 and 5 March 1981 (with reference point as the sunrise of 1 March 1981) throughout the country except Jammu and Kashmir and Assam. Due to unfavourable weather conditions in February-March 1981, the census in Jammu and Kashmir was conducted from 20 April to 10 May 1981 (with reference point being the sunrise of 6 May 1981). The census could not be taken in Assam due to disturbed conditions prevailing there at the time of census.

Total Population

According to the 1981 census, the total population of India (including the projected population of Assam) was 68,51,84,692. As compared to the 1971 census, it showed an increase of 25 per cent. The main

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TABLE 1·1

GROWTH OF POPULATION (1911-1981)

State/ Union Territory	1911	1921	1931	1941	1951	1961	1971	1981
India . . .	25,20,93,390	25,13,21,213	27,89,77,238	31,86,60,580	36,10,88,090	43,92,34,771	54,81,59,652	68,51,84,692
States								
1. Andhra Pradesh .	2,14,47,412	2,14,20,448	2,42,03,573	2,72,89,340	3,11,15,259	3,59,83,447	4,35,02,708	5,35,49,673
2. Assam[1] . .	38,48,617	46,36,980	55,60,371	66,94,790	80,28,856	1,08,37,329	1,46,25,152	1,98,96,843
3. Bihar . . .	2,83,14,281	2,81,26,675	3,13,47,108	3,51,70,840	3,87,82,271	4,64,47,457	5,63,53,369	6,99,14,734
4. Gujarat . .	98,03,587	1,01,74,989	1,14,89,828	1,37,01,551	1,62,62,657	2,06,33,350	2,66,97,475	3,40,85,799
5. Haryana . .	41,74,690	42,55,905	45,59,931	52,72,845	56,73,614	75,90,543	1,00,36,808	1,29,22,618
6. Himachal Pradesh	18,96,944	19,28,206	20,29,113	22,63,245	23,85,981	28,12,463	34,60,434	42,80,818
7. Jammu and Kashmir[2] . .	22,92,535	24,24,359	26,70,208	29,46,728	32,53,852	35,60,976	46,16,632	59,87,389
8. Karnataka . .	1,35,25,251	1,33,77,599	1,46,32,992	1,62,55,368	1,94,01,956	2,35,86,772	2,92,99,014	3,71,35,714
9. Kerala . . .	71,47,673	78,02,127	95,07,050	1,10,31,541	1,35,49,118	1,69,03,715	2,13,47,375	2,54,53,680
10. Madhya Pradesh .	1,94,40,965	1,91,71,750	2,13,55,657	2,39,90,608	2,60,71,637	3,23,72,408	4,16,54,119	5,21,78,844
11. Maharashtra .	2,14,74,523	2,08,49,666	2,39,59,300	2,68,32,758	3,20,02,564	3,95,53,718	5,04,12,235	6,27,84,171
12. Manipur .	3,46,222	3,84,016	4,45,606	5,12,069	5,77,635	7,80,037	10,72,753	14,20,953
13. Meghalaya .	3,94,005	4,22,403	4,80,837	5,55,820	6,05,674	7,69,380	10,11,699	13,35,819
14. Nagaland . .	1,49,038	1,58,801	1,78,844	1,89,641	2,12,975	3,69,200	5,16,449	7,74,930
15. Orissa. . .	1,13,78,875	1,11,58,586	1,24,91,056	1,37,67,988	1,46,45,946	1,75,48,846	2,19,44,615	2,63,70,271
16. Punjab . .	67,31,510	71,52,811	80,12,325	96,00,236	91,60,500	1,11,35,069	1,35,51,060	1,67,88,915
17. Rajasthan . .	1,09,83,509	1,02,92,648	1,17,47,974	1,38,63,859	1,59,70,774	2,01,55,602	2,57,65,806	3,42,61,862
18. Sikkim . .	87,920	81,721	1,09,808	1,21,520	1,37,725	1,62,189	2,09,843	3,16,385
19. Tamil Nadu .	2,09,02,616	2,16,28,518	2,34,72,099	2,62,67,507	3,01,19,047	3,36,86,953	4,11,99,168	4,84,08,077
20. Tripura .	2,29,613	3,04,437	3,82,450	5,13,010	6,39,029	11,42,005	15,56,342	20,53,058
21. Uttar Pradesh .	4,81,54,908	4,66,72,398	4,97,79,538	5,65,35,154	6,32,19,655	7,37,54,554	8,83,41,144	11,08,62,013
22. West Bengal	1,79,98,769	1,74,74,348	1,88,97,036	2,32,29,552	2,62,99,980	3,49,26,279	4,43,12,011	5,45,80,647
Union Territories[3]								
1. Andaman and Nicobar Islands . .	26,459	27,086	29,463	33,768	30,971	63,548	1,15,133	1,88,741
2. Arunachal Pradesh	—	—	—	—	—	3,36,558	4,67,511	6,31,839

State/Union Territory	1911	1921	1931	1941	1951	1961	1971	1981
3. Chandigarh .	18,437	18,133	19,783	22,574	24,261	1,19,881	2,57,251	4,51,610
4. Dadra and Nagar Haveli	29,020	31,048	38,260	40,441	41,532	57,963	74,170	1,03,676
5. Delhi . . .	4,13,851	4,88,452	6,36,246	9,17,939	17,44,072	26,58,612	40,65,698	62,20,406
6. Goa, Daman and Diu	5,19,222	5,00,904	5,41,710	5,83,736	5,96,059	6,26,667	8,57,771	10,86,730
7. Lakshadweep .	14,555	13,637	16,040	18,355	21,035	24,108	31,810	40,249
8. Mizoram . .	91,204	98,406	1,24,404	1,52,786	1,96,202	2,66,063	3,32,390	4,93,757
9. Pondicherry .	2,57,179	2,44,156	2,58,628	2,85,011	3,17,253	3,69,079	4,71,707	6,04,471

1. The 1981 population of Assam is based on projections.

2. The population of Jammu and Kashmir for 1951 has been taken to be arithmetic mean of 1941 and 1961 population. The population of the state for 1941 and earlier censuses has been adjusted to exclude that of areas currently under the illegal occupation of Pakistan and China. Later figures exclude the population of such areas.

3. Population figures for Goa, Daman and Diu, and Dadra and Nagar Haveli for 1911, 1941 and 1951 have been assumed to be the same as in 1900, 1910, 1940 and 1950 respectively. Similarly, figures for Pondicherry for 1951 have been assumed to be the same as in 1948. The 1961 figures for Goa, Daman and Diu relate to the census taken by the Portuguese authorities with reference date as 15 December 1960; figures for Dadra and Nagar Haveli relate to 1962 census with reference date as 1 March 1962.

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cause of this increase in population is the fall in the death rate brought about by better health conditions, effective control of epidemics, efficient handling of famine conditions and general improvement and economic development. The population has gone up despite a small fall in the birth rate. Table 1.1 shows population growth since 1911.

Density

The average density of population per sq km in 1981 was 216. It varied considerably from state to state, being as high as 655 in Kerala and as low as 45 in Sikkim and 8 in Arunachal Pradesh. The area and density of population in various states and union territories are shown in table 1.2.

TABLE 1·2
AREA AND DENSITY OF POPULATION

India/State/Union Territory	Area in sq km (000)	Population 1981	Density of population per sq km
INDIA[1]	3,287·32	6,85,184,692	216[3]
1. Andhra Pradesh	275·16	5,35,49,673	195
2. Assam[4]	78·4	1,98,96,843	254
3. Bihar	173·96	6,99,14,734	402
4. Gujarat	196·10[6]	3,40,85 799	174
5. Haryana	44·26	1,29,22,618	292
6. Himachal Pradesh	55·7	42,80,818	77
7 Jammu and Kashmir[5]	222·26	59,87,389	59
8. Karnataka	191·8	3,71,35,714	194
9. Kerala	38·96	2,54,53,680	655
10. Madhya Pradesh	443·56	5,21 78,844	118
11. Maharashtra	307·76	6,27,84,171	204
12. Manipur	22·3	14,20,953	64
13. Meghalaya	22·46	13,35,819	60
14. Nagaland	16·6	7,74,930	47
15. Orissa	155·7	2,63,70,271	169
16. Punjab	50·4	1,67,88,915	333
17. Rajasthan	342·2	3,42,61,862	100
18. Sikkim	7·1	3,16,385	45
19. Tamil Nadu	130·16	4,84,08,077	372
20. Tripura	10·5	20,53,058	196
21. Uttar Pradesh	294·46	11,08,62,013	377
22. West Bengal	88·86	5,45,80,647	615
1. Andaman and Nicobar Islands	8·2	1,88,741	23
2. Arunachal Pradesh	83·76	6,31,839	8
3. Chandigarh	0·1	4,51,610	3,961
4. Dadra and Nagar Haveli	0·5	1,03,676	211
5. Delhi	1·5	62,20,406	4,146
6. Goa, Daman and Diu	3·8	10,86,730	285
7. Lakshadweep	·03	40,249	1,258
8. Mizoram	21·1	4,93,757	23
9. Pondicherry	0·5	6,04,471	1,229

1. The popuation figures exclude population of area under unlawful occupation of Pakistan and China where census could not be taken.
2. The total area of the country represents provisional "Geographical Areas" as on 31 March 1982, supplied by the Survey of India. The area includes 78,114 sq km under illegal occupation of Pakistan, 5,180 sq km illegally handed over by Pakistan to China and 37,555 sq km under illegal occupation of China.
3. The density has been worked out on comparable data.
4. Projected figures for 1981.
5. The population figures exclude population of area under unlawful occupation of Pakistan and China where census could not be taken.
6. The area figures are provisional.

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The density of population and percentage increase of population between 1921 and 1981 are shown in table 1.3.

TABLE 1·3
DENSITY AND INCREASE OF POPULATION

Year	Density per sq km	Decade	Percentage increase in population
1921	81	—	—
1931	90	1921-31	11·0
1941	103	1931-41	14·2
1951	117	1941-51	13·3
1961	142	1951-61	21·5
1971	173[1]	1961-71	24·8
1981[2]	216[1]	1971-81	25·0

1. Density has been worked out on comparable data.
2. 1981 figures have been worked out after including projected figures of Assam where no census was conducted due to disturbed conditions prevailing at time of census.

Sex Ratio

According to the 1981 census, there are 35.4 crore males and 33.1 crore females. Thus for every 1,000 males, India has 933 females, the number declining from 972 in 1901 to 950 in 1931. Only Kerala has more women than men, that is, 1,032 per thousand men. The lowest female ratio among the states is in Sikkim, that is 835 per thousand men and lowest female ratio among the union territories is in Andaman and Nicobar Islands, where it is 760 per thousand men.

Literacy

One of the important characteristics on which information is obtained in the census is literacy. For the purpose of the census, a person is deemed as literate if he or she can read and write with understanding in any language. A person who can merely read but cannot write is not defined as literate. Children below five years were treated as illiterate.

Literacy rates would be more meaningful if one were to exclude the population in the age group 0-4 from total population. However, at this stage, this information is not available since it would only be generated through further tabulations. Therefore, the entire population is being taken into account including the population in the age group 0-4. According to 1981 census, the literacy percentage is 36.23. Out of this 46.89 per cent of males and 24.82 per cent of females are literate. The table 1.4 presents the literacy rates in the country. In working out these rates for 1981, the population of Assam has been excluded as the census was not taken there. The rates up to 1941 are for undivided India.

TABLE 1.4
LITERACY RATE PER 1,000 IN INDIA BY SEX

Year	Males	Females	Persons
1901	98	6	53
1911	106	11	59
1921	122	18	72
1931	156	29	95
1941	249	73	161
1951	249	79	167
1961	344	130	240
1971	395	187	294
1981	469[1]	248[1]	362[1]

1. Provisional

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The steady improvement in the proportion of literates among both males and females is apparent from the above statement. In particular, the improvement in the case of females is noteworthy. However, nearly half the males and three-fourths of the females in the country are still illiterate. Of the total population, nearly 64 per cent of the people are still illiterate.

Languages

A number of languages and dialects are spoken in India. Of these, 15 languages have been specified in the Eighth Schedule of the Constitution. These are : Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu and Urdu.

Birth and Death Rates

According to a Sample Registration System, the birth rate and death rate for India for 1981 was as follows :

(1) Birth rate—33.3 per 1,000 population, and
(2) Death rate—12.5 per 1,000 population.

The expectation of life at birth was 50.8 years for males and 50 years for females during 1976-77.

Towns and Villages

According to 1981 Census[1] there were 3,949 towns and 5,57,117 inhabited and 48,107 uninhabited villages in the country. Among the state, Uttar Pradesh had the largest number of towns (704), followed by Tamil Nadu (434), Madhya Pradesh (327) and Maharashtra (307). Nagaland has 7, Sikkim 8, Tripura 10, Himachal Pradesh 47, Jammu and Kashmir 58 and Haryana 81 towns.

Andaman and Nicobar Islands and Dadra and Nagar Haveli had one town each, while Delhi had 30 towns. Uttar Pradesh had 1,12,568 inhabited and 11,678 uninhabited villages. Madhya Pradesh had 71,352 and Sikkim 440 inhabited villages. Kerala did not have any uninhabited village. Arunachal Pradesh had the largest number of inhabited villages (3,257) but no uninhabited village.

There are 12 cities with a population of 10 lakh and above recorded at the 1981 census. These are Calcutta, Greater Bombay, Delhi, Madras, Hyderabad, Ahmadabad, Bangalore, Kanpur, Pune, Nagpur, Lucknow and Jaipur.

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1. Excludes population and other details under unlawful occupation of Pakistan and China where Census could not be taken and also excludes Assam, where census could not be held owing to disturbed conditions at the time of 1981 Census.

Note : An urban area is defined as follows : (a) All places with a municipality corporation, cantonment board of notified, town area committee, etc. (b) All other places which have : (i) a minimum population of 5,000; (ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and (iii) a density of population of at least 400 persons per sq km.

The inhabited and uninhabited villages stand for their literal meaning.

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TABLE 1·5

POPULATION, NUMBER OF LITERATES AND LITERACY RATES FOR 1981 BY SEX

India/State/Union Territory	1981								
	POPULATION			LITERATES			Percentage of literates to total population		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
India .	66,52,87,849	34,39,30,423	32,13,57,426	24,10,31,849	16,12,85,568	7,97,46,281	36·23	46·89	24·82
States									
1. Andhra Pradesh	5,35,49,673	2,71,08,922	2,64,40,751	1,60,34,818	1,06,42,377	53,92,441	29·94	39·26	20·39
2. Assam . .	—	—	—	—	—	—	—	—	—
3. Bihar . .	6,99,14,734	3,59,30,560	3,39,84,174	1,83,21,004	1,36,91,472	46,29,532	26·20	38·11	13·62
4. Gujarat . .	3,40,85,799	1,75,52,640	1,65,33,159	1,48,95,844	95,55,269	53,40,575	43·70	54·44	32·30
5. Haryana .	1,29,22,618	59,09,938	60,12,680	46,69,898	33,30,658	13,39,240	36·14	48·20	22·27
6. Himachal Pradesh . .	42,80,818	21,69,931	21,10,887	18,18,287	11,54,281	6,64,006	42·48	53·19	31·46
7. Jammu and Kashmir .	59,87,389	31,64,660	28,22,729	15,96,776	11,48,569	4,48,207	26·67	36·29	15·88
8. Karnataka .	3,71,35,714	1,89,22,627	1,82,13,087	1,42,82,717	92,36,276	50,46,441	38·46	48·81	27·71
9. Kerala . .	2,54,53,680	1,25,27,767	1,29,25,913	1,79,24,732	94,28,092	84,96,640	70·42	75·26	65·73
10. Madhya Pradesh . .	5,21,78,844	2,68,86,305	2,52,92,539	1,45,44,568	1,06,17,302	39,27,266	27·87	39·49	15·53
11. Maharashtra .	6,27,84,171	3,24,15,126	3,03,69,045	2,96,20,806	1,90,56,503	1,05,64,303	47·18	58·79	34·79
12. Manipur .	14,20,953	7,21,006	6,99,947	5,87,618	3,84,231	2,03,387	41·35	53·29	29·06
13. Meghalaya .	13,35,819	6,83,710	6,52,109	4,55,191	2,59,024	1,96,167	34·08	37·89	30·08
14. Nagaland .	7,74,930	4,15,910	3,59,020	3,29,878	2,08,195	1,21,683	42·57	50·06	33·89
15. Orissa . .	2,63,70,271	1,33,09,786	1,30,60,485	90,27,205	62,68,643	27,58,562	34·23	47·10	21·12
16. Punjab . .	1,67,88,915	89,37,210	78,51,705	68,60,349	42,14,878	26,45,471	40·86	47·16	33·69
17. Rajasthan .	3,42,61,862	1,78,54,154	1,64,07,708	83,54,117	64,81,156	18,72,961	24·38	36·30	11·42
18. Sikkim . .	3,16,385	1,72,440	1,43,945	1,07,738	75,779	31,959	34·05	43·95	22·20
19. Tamil Nadu .	4,84,08,077	2,44,87,624	2,39,20,453	2,26,37,639	1,42,67,331	83,70,328	46·76	58·26	34·99
20. Tripura .	20,53,058	10,54,846	9,98,212	8,64,799	5,45,401	3,19,398	42·12	51·70	32·00
21. Uttar Pradesh .	11,08,62,013	5,88,19,276	5,20,42,737	3,01,05,260	2,27,98,451	73,06,809	27·16	38·76	14·04
22. West Bengal .	5,45,80,647	2,85,60,901	22,60,19,747	2,23,44,153	1,44,73,045	78,71,108	40·94	50·67	30·25

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India/State/Union Territory	1981								
	POPULATION			LITERATES			Percentage of literates to total population		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
Union Territories									
1. Andaman and Nicobar Islands	1,88,741	1,07,261	81,480	97,321	62,983	34,338	51·56	58·72	42·14
2. Arunachal Pradesh .	6,31,839	3,39,322	2,92,517	1,31,333	98,211	33,122	20·79	28·94	11·32
3. Chandigarh .	4,51,610	2,55,278	1,96,332	2,92,580	1,76,130	1,16,450	64·79	69·00	59·31
4. Dadra and Nagar Haveli .	1,03,676	52,515	51,161	27,655	19,072	8,583	26·67	36·32	16·78
5. Delhi . .	62,20,406	34,40,081	27,80,325	38,28,326	23,52,883	14,75,443	61·54	68·40	53·07
6. Goa, Daman and Diu	10,86,730	5,48,450	5,38,280	6,15,722	3,59,731	2,56,021	56·66	65·59	47·56
7. Lakshadweep .	40,249	20,377	19,872	22,165	13,293	8,872	55·07	65·24	44·65
8. Mizoram .	4,93,757	2,57,239	2,36,518	2,95,685	1,65,812	1,29,873	59·88	64·46	54·91
9. Pondicherry .	6,04,471	3,04,561	2,99,910	3,37,615	2,00,520	1,37,095	55·85	65·84	45·71

Notes :—

1. Figures of India for 1981 exclude Assam where census could not be held due to disturbed conditions prevailing at the time of census.
2. Literacy figures are provisional.
3. 1981 figures also include the population of age group 0-4.
4. The figures of 1981 for India and Jammu and Kashmir exclude the population of areas under unlawful occupation of Pakistan and China, where census could not be taken.

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2 NATIONAL SYMBOLS

NATIONAL FLAG

The National Flag is a horizontal tricolour of deep saffron (kesari) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of the width of the Flag to its length is two to three. In the centre of the white band is a wheel, in navy blue, which represents the *Charkha*. Its design is that of the wheel (*Chakra*), which appears on the abacus of the Sarnath Lion Capital of Asoka. Its diameter approximates to the width of the white band and it has 24 spokes.

The design of the National Flag was adopted by the Constituent Assembly of India on 22 July 1947. Its use and display are regulated by a code.

STATE EMBLEM

The State Emblem of India is an adaptation from the Sarnath Lion Capital of Asoka as preserved in the Sarnath Museum. In the original, there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels (*Chakras*) over a bell-shaped lotus. Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (*Dharma Chakra*).

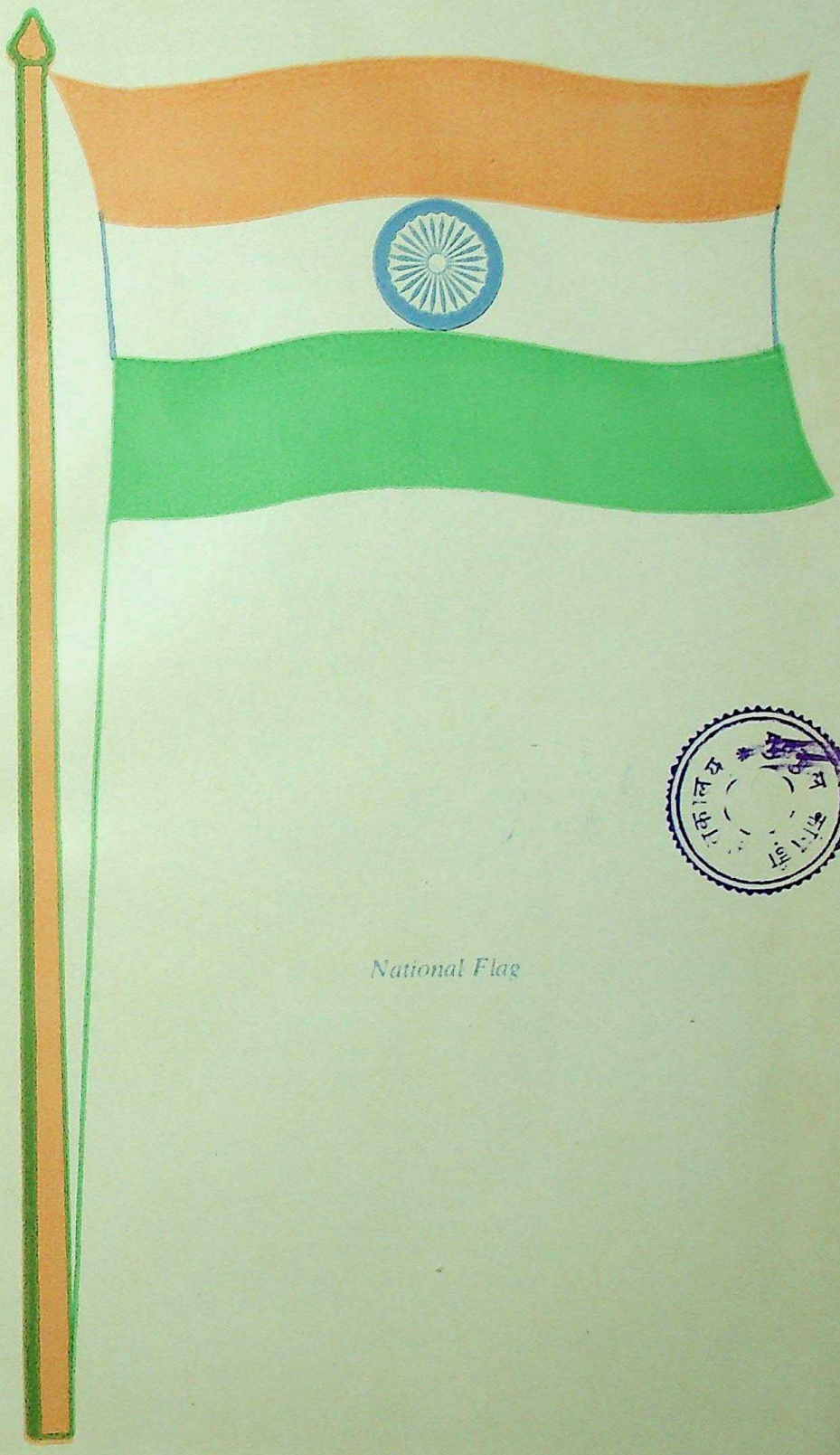
In the State Emblem adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on the right and a horse on the left and the outlines of the other wheels on the extreme right and left. The bell-shaped lotus has been omitted. The words *Satya Meva Jayate,* from the *Mundaka Upanishad,* meaning 'Truth alone Triumphs', are inscribed below the abacus in Devanagari script.

NATIONAL ANTHEM

The song *Jana-gana-mana,* composed by Rabindranath Tagore (1861-1941) was adopted by the Constituent Assembly as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Calcutta session of the Indian National Congress.

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सत्यमेव जयते

National Emblem

NATIO
SONG

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The complete song consists of five stanzas. The first stanza constitutes the full version of the National Anthem. It reads:

Jana-gana-mana-adhinayaka, jaya he
Bharata-bhagya-vidhata.
Punjaba-Sindhu-Gujarata-Maratha-
Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
uchhala-jaladhi-taranga
Tava subha name jage,
tava subha asisa mage,
gahe tava jaya-gatha,
Jana-gana-mangala-dayaka, jaya he
Bharata-bhagya-vidhata.
Jaya he, jaya he, jaya he,
jaya jaya jaya, jaya he.

Playing time of the full version of the National Anthem is approximately 52 seconds. A short version consisting of the first and last lines of this stanza (playing time approximately 20 seconds) is also played on certain occasions. The following is Tagore's English rendering of this stanza:

Thou art the ruler of the minds of all people,
Dispenser of India's destiny.
Thy name rouses the hearts of Punjab, Sind, Gujarat and Maratha,
Of Dravida and Orissa and Bengal;
It echoes in the hills of Vindhyas and Himalayas,
mingles in the music of Jamuna and Ganges
and is chanted by the waves of the Indian Sea.
They pray for thy blessings and sing thy praise.
The saving of all people waits in thy hand,
Thou dispenser of India's destiny.
Victory, victory, victory to thee.

NATIONAL SONG

The song *Vande Mataram,* composed by Bankim Chandra Chatterji (1838-1894) was a source of inspiration to the people in their struggle for freedom. It has an equal status with *Jana-gana-mana.* The first political occasion on which it was sung was the 1896 session of the Indian National Congress. The following is the text of its first stanza:

Vande Mataram !
Sujalam, suphalam, malayaja-shitalam,
Shasyashyamalam, Mataram !
Shubhrajyotsna, pulakitayaminim,
Phullakusumita-drumadala-shobhinim,
Suhasinim sumadhura-bhashinim,
Sukhadam, varadam, Mataram!

The English translation of the stanza rendered by Sri Aurobindo (1872-1950) is:

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,

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dark with the crop of the harvests,
the Mother!
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
the Mother, giver of boons, giver of bliss!

NATIONAL CALENDAR

A uniform National Calendar based on the Saka era with Chaitra as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian calendar for the following official purposes : (i) The Gazette of India, (ii) news broadcast by All India Radio, (iii) calendars issued by the Government of India, and (iv) government communications addressed to members of the public.

The dates of the National Calendar have a permanent correspondence with the dates of the Gregorian calendar; 1 Chaitra falling on 22 March normally and on 21 March in a leap year.

NATIONAL ANIMAL

Tiger is the national animal of the country and peacock the national bird.

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3 GOVERNMENT

India, a union of states, is a Sovereign Socialist Secular Democratic Republic with a parliamentary system of government. The Republic is governed in terms of the Constitution, which was adopted by the Constituent Assembly on 26 November 1949 and came into force on 26 January 1950.

The Constitution which envisages a parliamentary form of government is federal in structure with unitary features. The President of India is the constitutional head of the executive of the Union. Though the Constitution vests the executive power in the President, it also specifies that the said power is to be exercised in accordance with the Constitution. By virtue of Article 74 (1), there shall be a Council of Ministers with the Prime Minister as the head to aid and advise the President who shall, in the exercise of his functions, act in accordance with such advice. The real executive power thus vests in the Council of Ministers with the Prime Minister as the head. The Council of Ministers is collectively responsible to the House of the People (Lok Sabha). Similarly, in the states, the Governor occupies the position of the head of the executive of the state, but it is really the Council of Ministers with the Chief Minister as the head in whom the real executive power vests. The Council of Ministers of the state is collectively responsible to the legislative assembly of the state.

The Constitution distributes the legislative power between the Union Legislature and the state legislatures and provides for vesting of residual powers in Parliament. The power to amend the Constitution also vests in Parliament.

The superintendence, direction and control of the preparation of the electoral rolls for and the conduct of all elections to Parliament and to the state legislatures and to the offices of President and Vice-President are vested in the Election Commission, which consists of the Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may fix and appoint. The Chief Election Commissioner's independence is sought to be protected by a special Constitutional provision to the effect that he shall not be removed

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from his office except in like manner and on the like grounds as a judge of the Supreme Court, and his conditions of service shall not be varied to his disadvantage after his appointment.

The Parliamentary system of government in India is based on adult suffrage, whereby all citizens of India who are not less than 21 years of age and are not disqualified under the Constitution or any law made by the appropriate legislature on certain grounds like non-residence, unsoundness of mind or crime, illegal or corrupt practices, have the right to be registered as voters in any election to the Lok Sabha and legislative assemblies of the states. In 1980, the number of voters on the electoral rolls was 36.39 crore approximately.

The Constitution also has provisions for the independence of the judiciary, of the Comptroller and Auditor-General of India, and the Public Service Commissions.

The judiciary has now been separated from the executive at all levels throughout the country.

THE UNION AND ITS TERRITORY

India comprises 22 states and nine union territories. The states are: Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. The union territories are : Andaman and Nicobar Islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, Lakshadweep, Mizoram and Pondicherry.

CITIZENSHIP

The Constitution provides for a single and uniform citizenship for the whole of India. Every person who was at the commencement of the Constitution (26 January 1950) domiciled in the territory of India and (a) was born in the territory of India, or (b) either of whose parents was born in the territory of India, or (c) who had been ordinarily resident in the territory of India for not less than five years immediately preceding that date, became a citizen of India. Special provision was made for migrants from Pakistan and for persons of Indian origin resident abroad. The Citizenship Act, 1955, which supplements the provisions of the Constitution, provides for the acquisition of citizenship by birth, descent, registration, naturalisation and incorporation of territory. The Act also provides for loss of citizenship by renunciation, termination and deprivation.

FUNDAMENTAL RIGHTS

The Constitution offers all citizens, individually and collectively, some basic freedoms. These are guaranteed in the Constitution in the form of six broad categories of Fundamental Rights which are justiciable. These are : (i) the right to equality including, equality before law, prohibition of discrimination on grounds of religion, race, caste, sex, or place of birth and equality of opportunity in matters of employment; (ii) the rights to freedom of speech and expression; assembly; association or union; movement; residence; and the right to practise any profession or occupation (some of these rights are subject to the security of the State, friendly relations with foreign countries, public order, decency or morality); (iii) the right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) the right to freedom of conscience and free profession, practice and propagation of religion; (v) the right of any section of the citizens to conserve their culture, language or script and right of minorities to establish and administer educational institutions of their

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choice; and (vi) the right to constitutional remedies for the enforcement of Fundamental Rights.

FUNDAMENTAL DUTIES

By the 42nd Amendment of the Constitution, adopted in 1976, fundamental duties of the citizens have also been enumerated. These enjoin upon a citizen, among other things, to abide by the Constitution, to cherish and follow the noble ideals which inspired our national struggle for freedom, to defend the country and render national service when called upon to do so and to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities.

DIRECTIVE PRINCIPLES OF STATE POLICY

The Constitution lays down certain Directive Principles of State Policy which, though not justiciable, are 'fundamental in the governance of the country' and it is 'the duty of the State to apply these principles in making laws'. These lay down that the State shall strive 'to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life. The State shall direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work, and, within the limits of its economic capacity and development, to make effective provision for securing the right to work, education and to public assistance in the event of unemployment, old age, sickness and disablement or other cases of undeserved want. The State shall also endeavour to secure to workers a living wage, humane conditions of work, a decent standard of life and full involvement of workers in the management of industries.

In the economic sphere, the State is to direct its policy in such a manner as to secure the distribution of ownership and control of the material resources of the community to subserve the common good and to ensure that the operation of the economic system does not result in the concentration of wealth and means of production to common detriment.

Some of the other important Directives relate to the provision of opportunities and facilities for children to develop in a healthy manner, free and compulsory education for all children up to the age of 14; promotion of educational and economic interests of scheduled castes, scheduled tribes and other weaker sections; organisation of village *panchayats;* separation of judiciary from the executive; promulgation of a uniform civil code for the whole country; protection of national monuments; promotion of justice on a basis of equal opportunity; provision of free legal aid; protection and improvement of the environment and safeguarding of forests and wild life of the country; and the promotion of international peace and security, just and honourable relations between nations, respect for international law and treaty obligations and settlement of international disputes by arbitration.

THE UNION

EXECUTIVE

The Union executive shall consist of the President, the Vice-President and the Council of Ministers with the Prime Minister at the head to aid and advise the President.

President

The President is elected by the members of an electoral college consisting of the elected members of both Houses of Parliament and of the

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legislative assemblies of states in accordance with the system of proportional representation by means of the single transferable vote. To secure uniformity among the states *inter se* as well as parity between the states as a whole and the Union, suitable weightage is given to each vote. The President must be a citizen of India, not less than 35 years of age, and qualified for election as a member of the Lok Sabha (House of the People). His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in Article 61 of the Constitution. He may, by writing under his hand addressed to the Vice-President, resign his office.

The executive power of the Union is vested in the President and is exercised by him either directly or through officers subordinate to him in accordance with the Constitution. The supreme command of the Defence Forces of the Union also vests in him. The President summons, prorogues, addresses, sends messages to Parliament and dissolves the Lok Sabha; promulgates ordinances at any time, except when both Houses of Parliament are in session; makes recommendations for introducing financial and money bills and gives assent to bills; grants pardons, reprieves, respites or remissions of punishment or suspends, remits or commutes sentences in certain cases. When there is a failure of constitutional machinery in a state, he can assume to himself all or any of the functions of the government of the state. The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby the security of India or of any part of its territory is threatened whether by war or external aggression or armed rebellion.

Vice-President

The Vice-President is elected by the members of an electoral college consisting of the members of both Houses of Parliament in accordance with the system of proportional representation by means of the single transferable vote. He must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Rajya Sabha (Council of States). His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in Article 67(b).

The Vice-President is the ex-officio Chairman of the Rajya Sabha and acts as the President when the latter is unable to discharge his functions due to absence, illness or any other cause, or till the election of a new President (to be held within six months) when a vacancy is caused by death, resignation or removal, or otherwise of the President. While so acting, he ceases to perform the function of the Chairman of the Rajya Sabha.

Council of Ministers

There is a Council of Ministers headed by the Prime Minister to aid and advise the President in the exercise of his functions. The Prime Minister is appointed by the President who also appoints other ministers on the advice of the Prime Minister. The Council is collectively responsible to the Lok Sabha. It is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers relating to the administration of the affairs of the Union and proposals for legislation and information relating to them.

The Council of Ministers comprises ministers, who are members of the Cabinet, ministers of state and deputy ministers. For the list, see Appendices.

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Administrative Set-up

Rules of Business have been framed under the Constitution for the allocation of the business of government among ministers for convenient transaction.

The allocation is made by the President on the advice of the Prime Minister specifying the items of business allotted to each ministry and by assigning a ministry or a part of a ministry or more than one ministry to the charge of a minister. A cabinet minister is often assisted by a minister of state or a deputy minister or both.

Generally, each ministry has an officer designated as Secretary to the Government of India to advise the minister on policy matters and general administration.

Planning of Government Business

The Department of Parliamentary Affairs serves as a liaison agency between various ministries/departments of the Government of India and the two secretariats of Parliament. It has been entrusted with the responsibility of coordinating, planning and arrangement of government business—both legislative and non-legislative in Lok Sabha and Rajya Sabha. On the Government side, the main coordinating body for Parliamentary Affairs is the Cabinet Committee on Parliamentary Affairs, the Secretariat of which is provided by the Department. On Parliament side, the Business Advisory Committee of each House determines the allocation of time for various kinds of business. The Department maintains contacts with leaders of opposition parties, groups for their views on the allocation of time in the two Houses on important issues coming up before Parliament. In order to ascertain their views on national problems, it also arranges meetings of the opposition leaders with the Prime Minister/and/or ministers concerned.

Cabinet Secretariat

The Cabinet Secretariat has an important co-ordinating role in the process of decision-making at the highest level and operates under the direction of the Prime Minister. Its functions include submission of cases to the Cabinet and its committees, preparation of the records of decisions taken and follow-up action on their implementation. It also serves the committees of Secretaries which meet periodically under the chairmanship of the Cabinet Secretary to consider and advise on problems requiring inter-ministerial consultation and coordination. It formulates the Rules of Business and allocates the business of the Government of India to the ministries and departments under the direction of the Prime Minister and with the approval of the President. The Department obtains and circulates to the President, the Vice-President, the Council of Ministers and other important functionaries, periodical summaries and notes on important developments in each ministry.

An Economic Administration Reforms Commission under the chairmanship of L. K. Jha was constituted on 5 March 1981, for advising the Government on certain important areas of economic administration and on matters involving interaction between different sectors of government activity in this field. The present term of the Commission is up to 30 June 1983 and thereafter the Commission will work as 'One man Commission' under the chairmanship of L. K. Jha.

On 21 March 1983, Government have constituted an Advisory Board on Energy under the chairmanship of K. C. Pant, Member of Parliament. It includes representatives from different energy sectors and also specialists and experts. The Board will be responsible for continuously reviewing the energy situation and propose future energy

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options on an integrated and coordinated basis. The Board will assess the likely demand and availability of different forms of energy and suggest appropriate arrangements to meet the country's energy needs on an optimal basis. An important function of the Board will be to propose measures for energy conservation, energy substitution and more efficient use of different forms of energy. The term of the Board will be initially for two years.

PUBLIC SERVICES

For recruitment to civil services and posts under the Union Government, the Constitution provides for an independent body known as the Union Public Service Commission. The chairman and members of the Commission are appointed by the President.

To ensure the independence of the Commission, the Constitution debars its chairman from further employment either under the Government of India or the government of a state. A member of the Commission is, however, eligible for appointment as chairman of that Commission or of a state Public Service Commission, but for no other government employment.

The personnel of the Commission as on 1 January 1983 were :

Chairman : Dr. M. L. Shahare

Members : N. S. Saksena, Jaswant Rai Bansal, A. K. Bakshi, Abdul Hamid, Smt. R. O. Dhan, K. Venkata Ramaiah and S. Samaddai

STAFF SELECTION COMMISSION

On the recommendations of the Administrative Reforms Commission, a Subordinate Service Commission came into existence on 1 July 1976. It was renamed as the Staff Selection Commission from 26 September 1977. Its primary function is to make recruitment to non-technical class III posts in different departments of the Government of India and in subordinate offices, except those posts for which recruitment is made by the Railway Service Commission and industrial establishments. The Commission's headquarters as well as the office of its northern region is located in New Delhi. The offices of the central, western, north eastern, eastern and southern regions are located at Allahabad, Bombay, Guwahati, Calcutta and Madras respectively. It has one sub-regional office at Raipur. The Chairman of the Commission as on 1 January 1983 was Smt. Inderjit Kaur Sandhu.

COMPTROLLER AND AUDITOR-GENERAL

The Comptroller and Auditor-General of India is appointed by the President. The procedure and the grounds for his removal from office are the same as for a Supreme Court judge. He is not eligible for further office under the Union or a state government after he ceases to hold his office.

The President on the advice of the Comptroller and Auditor-General prescribes the form in which the accounts of the Union and of the states are to be kept. His reports on the accounts of the Union and of the states are submitted to the President and the respective Governors and are placed before Parliament and state legislatures.

The duties, powers and conditions of service of the Comptroller and Auditor-General have been specified by the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971.

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OFFICIAL LANGUAGE

According to the Constitution, Hindi in Devanagari script is the official language of the Union and the international form of Indian numerals is to be used for the official purposes of the Union. The Constitution also authorised the continued use of the English language up to 25 January 1965, after which Parliament could further consider the issue. Drawing authority from the Constitution, the Official Languages Act, 1963 further provided for the continued use of English, in addition to Hindi for the official purposes of the Union and also for the transaction of business in Parliament. It also provides that English shall be used for purposes of communication between the Union and a state which has not adopted Hindi as its official language. It does not, however, prevent a state which has not adopted Hindi as its official language from using Hindi for communication with the Union or with a state which has adopted Hindi as its official language. The Act also lays down that both Hindi and English shall compulsorily be used for certain specified purposes, such as, resolutions, general orders, rules, notifications, press communiques, administrative reports, etc.

Under the provisions of section 8 of the Official Languages Act, 1963, Government have framed the Official Languages (Use for Official Purposes of the Union) Rules, 1976 which are intended to provide practical guidelines for the implementation of the official language policy of the Government. Salient features of these rules are as under : (i) The rules apply to all Central Government offices, including any office of a corporation or company owned or controlled by the Central Government. (ii) Communications from a Central Government office to a state or union territory in Region 'A' (comprising Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Bihar, Rajasthan, Haryana and Delhi) or to any person in such state or union territory shall be in Hindi. (iii) Communications from a Central Government office to a state or union territory in Region 'B' (comprising Punjab, Gujarat, Maharashtra, Chandigarh and the Andaman and Nicobar Islands) shall ordinarily be in Hindi. However, communications to any person in Region 'B' may be either in Hindi or in English. (iv) Communications from a Central Government office to a state or union territory or to any person in such state or union territory (other than those indicated in (ii) and (iii) above shall be in English, (v) Communications between one ministry or department of the Central Government and another may be in Hindi or in English. (vi) Communications between a ministry or department and an attached or subordinate office of the Central Government located in Region 'A' shall be in Hindi on such proportion as the Central Government may determine from time to time (the proportion currently in force is 2 : 3). Communications between other Central Government offices situated in Region 'A' shall be only in Hindi. (vii) All communications received in Hindi shall be replied to in Hindi. Similarly, whenever any application, appeal or representation is made or signed in Hindi it shall be replied to in Hindi. (viii) Every Central Government employee has the option to use either Hindi or English for recording notes or minutes on a file, without being required to furnish a translation thereof in the other language. (ix) All manuals, codes and other procedural literature relating to Central Government offices shall be prepared both in Hindi and English in diglot form. All forms, headings of registers, name plates, notice boards and the various items of stationery etc. shall be in Hindi and English. (x) It shall be the responsibility of the administrative head of each Central

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Government office to ensure that the provisions of the Act and the Rules are properly complied with and to devise effective check points for this purpose.

The general policy of Government is to encourage the progressive use of Hindi as the official language of the Union and as link language for communications between the Centre and a state and between states themselves.

The Department of Official Language under the Ministry of Home Affairs has been entrusted with the responsibility of implementing the official language policy of the Government and to coordinate the activities of the various ministries/departments in this behalf.

LEGISLATURE

The legislature of the Union, which is called Parliament, consists of the President and two Houses, known as the Council of States (Rajya Sabha) and the House of the People (Lok Sabha). Each House of Parliament has to meet within six months of its previous sitting. A joint sitting of the two Houses can be held in certain cases.

Rajya Sabha

The Constitution provides that the Rajya Sabha shall consist of not more than 250 members, of whom 12 having special knowledge or practical experience in literature, science, art and social service, shall be nominated by the President and the rest shall be representatives of the states and the union territories. The elections to the Rajya Sabha are indirect; those representing the states are elected by the elected members of the legislative assemblies of the states concerned in accordance with the system of proportional representation by means of the single transferable vote and those representing the union territories are chosen in such a manner as Parliament may by law prescribe. The Rajya Sabha is not subject to dissolution, one-third of its members retiring on the expiration of every second year.

The membership of the Rajya Sabha, as constituted at present, is 244. Of these, 232 represent the states and union territories and twelve members, being specialists in the fields of literature, science, art and social service, are nominated by the President.

Lok Sabha

The Lok Sabha, as constituted at present, consists of 544 members. Of these 525 are directly elected from 22 states and 17 from nine union territories. Two members are nominated by the President to represent the Anglo-Indian community.

The number of seats for each state is so allocated that the ratio between the number and the population of the state is, as far as practicable, the same for all the states. The allocation of seats in the present Lok Sabha is based on the 1971 census and, under the 42nd Amendment of the Constitution (1976), will continue to be so based until figures of the first census taken after 2000 AD become available. The term of the Lok Sabha, unless sooner dissolved, is for five years from the date appointed for its first meeting. Seven Lok Sabhas have been constituted so far. The term of each Lok Sabha is given in table 3.1.

The state-wise allocation of seats in the two Houses and the party position in the Lok Sabha is given in table 3.2.

TABLE 3·1

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TABLE 3·1

TERM OF LOK SABHAS

	Date of first meeting after its constitution	Date of dissolution	Speaker [1]	Term of the Speaker(s) From	To
First Lok Sabha	13 May 1952	4 April 1957[2]	Ganesh Vasudev Mavalankar (1888-1956)	15 May 1952	27 February 1956 [3]
			M. Ananthasayanam Ayyangar (1891-1978)	8 March 1956	10 May 1957
Second Lok Sabha	10 May 1957	31 March 1962 [4]	M. Ananthasayanam Ayyangar	11 May 1957	16 April 1962
Third Lok Sabha	16 April 1962	3 March 1967 [5]	Hukam Singh (1895-1983)	17 April 1962	16 March 1967
Fourth Lok Sabha	16 March 1967	27 December 1970 [6]	Neelam Sanjiva Reddy	17 March 1967	19 July 1969 [7]
			Dr. Gurdial Singh Dhillon	8 August 1969	19 March 1971
Fifth Lok Sabha	19 March 1971	18 January 1977 [8]	Dr. Gurdial Singh Dhillon	22 March 1971	1 December 1975 [9]
			Bali Ram Bhagat	5 January 1976	25 March 1977
Sixth Lok Sabha	25 March 1977	22 August 1979 [10]	Neelam Sanjiva Reddy	26 March 1977	13 July 1977 [11]
			K.S. Hegde	21 July 1977	21 January 1980
Seventh Lok Sabha	21 January 1980	—	Dr. Bal Ram Jakhar	22 January 1980	Till date

1. Under Article 94 of the Constitution, in case of dissolution of Lok Sabha, the Speaker does not vacate his Office until immediately before the first meeting of the House after the dissolution.
2. Dissolved 38 days earlier than its normal life.
3. Died.
4. Dissolved 40 days earlier than its normal life.
5. Dissolved 44 days before the expiry of its term.
6. Dissolved one year and 79 days before the expiry of its term.
7. Resigned.
8. The term of the Lok Sabha, which was to expire on 18 March 1976 was extended by one year up to 18 March 1977 by the House of the People (Extension of Duration) Act, 1976. The term was extended for a further period of one year up to 18 March 1978 by the House of the People (Extension of Duration) Amendment Act, 1976. However, the House was dissolved after having been in existence for period of 5 years 10 months and 6 days.
9. Resigned.
10. The House was dissolved after having been in existence for a period of two years, four months and 28 days.
11. Resigned.

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TABLE 3·2

ALLOCATION OF SEATS IN TWO HOUSES OF PARLIAMENT AND PARTY POSITION IN LOK SABHA
(AS ON 7 APRIL 1983)

Name of State/Union Territory	No. of seats in Rajya Sabha	LOK SABHA										
		Seats	Cong. (I)	CPI (M)	Lok Dal	Janata	DMK	BJP	Other Parties	Unattached	Total	Vacancies
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
STATES												
Andhra Pradesh	18	42	39	—	—	—	—	—	1[1]	1	41	1
Assam	7	14	7	—	—	—	—	—	—	—	7	7
Bihar	22	54	32	—	—	7	—	2	8[2]	3	53	1
Gujarat	11	26	22	—	—	1	—	—	—	2	25	1
Haryana	5	10	5	—	2	1	—	1	—	—	9	1
Himachal Pradesh	3	4	4	—	—	—	—	—	—	—	4	—
Jammu and Kashmir	4	6	2	—	—	—	—	—	—	2	4	2
Karnataka	12	28	27	—	—	1	—	—	—	—	28	—
Kerala	9	20	5	6	—	—	—	—	6[3]	3	20	—
Madhya Pradesh	16	40	33	—	—	—	—	6	—	1	40	—
Maharashtra	19	48	40	—	—	6	—	2	—	—	48	—
Manipur	1	2	1	—	—	—	—	—	1[4]	—	2	—
Meghalaya	1	2	1	—	—	—	—	—	—	1	2	—
Nagaland	1	1	1	—	—	—	—	—	—	—	1	—
Orissa	10	21	20	—	—	1	—	—	—	—	21	—
Punjab	7	13	10	—	—	—	—	—	—	1	11*	1
Rajasthan	10	25	18	—	1	2	—	3	1[5]	—	25	—
Sikkim	1	1	1	—	—	—	—	—	—	—	1	—
Tamil Nadu	18	39	20	—	—	—	15	—	4[6]	—	39	—
Tripura	1	2	—	2	—	—	—	—	—	—	2	—
Uttar Pradesh	34	85	46	—	22	2	—	1	12[7]	2	84	1
West Bengal	16	42	4	28	—	—	—	—	10[8]	—	42	—

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UNION TERRITORIES												
Andaman and Nicobar Islands	1	1	1	—	—	—	—	—	—	—	1	—
Arunachal Pradesh	1	2	2	—	—	—	—	—	—	—	2	—
Chandigarh	—	1	1	—	—	—	—	—	—	—	1	—
Dadra and Nagar Haveli	—	1	1	—	—	—	—	—	—	—	1	—
Delhi	3	7	6	—	—	—	—	1	—	—	7	—
Goa, Daman and Diu	—	2	2	—	—	—	—	—	—	—	2	—
Lakshadweep	—	1	1	—	—	—	—	—	—	—	1	—
Mizoram	1	1	—	—	—	—	—	—	—	1	1	—
Pondicherry	1	1	1	—	—	—	—	—	—	—	1	—
Anglo-Indian (Nominated)	—	2	—	—	—	—	—	—	—	2	2	—
Nominated by President under Article 80(1)(a) of the Constitution	12	—	—	—	—	—	—	—	—	—	—	—
Total	244	544	354	36	25	21	15	16	43	19	528*	15

*Excluding the Speaker.

1. Congress(S)—1.
2. Congress(S)—2; CPI—5; Congress(J)—1.
3. Congress(S)1; CPI—2; Muslim League—2, DSP—1.
4. CPI—1.
5. Congress(S)—1.
6. AIADMK—3; Muslim League—1.
7. CPI—1; Congress(J)—1; DSP—8; Janavadi—2.
8. RSP—4; Forward Block—3; CPI—3.

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Qualifications for Membership of Parliament

In order to be chosen a member of Parliament, a person must be a citizen of India; must be not less than 30 years of age in the case of the Rajya Sabha and not less than 25 years of age in the case of the Lok Sabha. Additional qualifications may be prescribed by Parliament by law.

Parliamentary Privileges

The Constitution provides for freedom of speech in Parliament. No member of Parliament can be held liable to any proceedings in any court in respect of anything said or any vote given by him in Parliament or any of its committees. In other respects, the powers, privileges and immunities of each House of Parliament and of the members and the committees of each House shall be such as may from time to time be defined by Parliament by law, and, until so defined, shall be those of that House and of its members and committees immediately before 20 June 1979.

The validity of any proceedings in Parliament shall not be called in question on the ground of any irregularity of procedure.

Leaders of Opposition in Parliament

Giving cognizance to the important role of the Leader of Opposition in parliamentary democracy, statutory recognition has been accorded to the Leaders of Opposition in the Rajya Sabha and the Lok Sabha[1]. They also get salary and certain facilities to enable them to discharge their functions in Parliament. Necessary legislation for this was enacted in July 1977.

Functions and Powers of Parliament

The main functions of Parliament are to make laws for the country and make finances available to the Government for the services of the state. The Council of Ministers is collectively responsible to the Lok Sabha. Parliament is also vested with the powers to impeach the President and to remove judges of the Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor-General in accordance with the procedure laid down in the Constitution.

All legislation requires the consent of both Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails. Delegated legislation is also subject to review and control by Parliament. All financial legislation must be recommended by the President but the Lok Sabha alone has the power to vote the demands for grants presented by the Government. In times of an emergency, and also in some other contingencies laid down in the Constitution, the legislative authority of Parliament also extends to matters enumerated in the State List. The power to amend the Constitution also rests primarily with Parliament, except in some cases where ratification by the legislatures of not less than one-half of the states is prescribed by the Constitution.

Parliamentary Committees

To assist Parliament in its deliberations, Parliamentary Committees are appointed or elected by the respective Houses on a motion made or are nominated by their presiding officers.

Broadly, these committees are of two kinds, standing committees and *ad hoc* committees. The former are elected or appointed every year or periodically and their work goes on more or less on a continuous basis. The latter are appointed *ad hoc*, that is, as and when the

1. In the Seventh Lok Sabha so far, no Leader of the Opposition has been recognised as such, as none of the parties in the Opposition command the requisite strength in the House.

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need arises. They cease to exist as soon as they complete the work assigned to them.

Standing Committees

Among the standing committees of the Lok Sabha, the three financial committees, *viz.,* Committee on Public Accounts, Estimates Committee and Committee on Public Undertakings constitute a distinct class and between them keep a vigil over Government spending and performance.

The Public Accounts Committee scrutinises the Appropriation Accounts of the Government of India and the report of the Comptroller and Auditor-General thereon. It ensures that public money is spent in accordance with Parliament's decision and calls attention to cases of waste, extravagance, loss or nugatory expenditure. The Estimates Committee reports on 'what economies, improvements in organisation, efficiency or administrative reform, consistent with the policy underlying the estimates' may be effected. It also examines whether the money is well laid out within the limits of the policy implied in the estimates and suggests the form in which the estimates shall be presented to Parliament. The Committee on Public Undertakings examines the reports and accounts of certain specified public undertakings and reports of the Auditor-General thereon, if any. It also examines whether the public undertakings are being run efficiently and managed in accordance with sound business principles and prudent commercial practices. The control exercised by these committees is of a continuous nature. They gather information through questionnaires, memoranda from representative non-official organisations and knowledgeable individuals, on-the-spot study of organisations and oral examination of official and non-official witnesses.

The other standing committees are : (i) Committee of Privileges which examines any question of privilege referred to it by the House or the Speaker; (ii) Committee on Petitions which examines petitions on Bills and on matters of public interest and also entertains representations on Central subjects; (iii) Committee on Subordinate Legislation which scrutinises whether the powers to make rules, regulations, sub-rules and bye-laws conferred by the Constitution or delegated by Parliament are being properly exercised by the Government within the scope of such delegation; (iv) Committee on Government Assurances which keeps track of the assurances given by ministers on the floor of the House and pursues them till they are implemented; (v) Committee on Papers laid on the Table which examines all the papers laid on the table of the House by ministers; (vi) Business Advisory Committee which recommends the allocation of time for all items to be brought before the House; (vii) Committee on Private Members' Bills and Resolutions which deals with classification and allocation of time to Bills from private members, recommends allocation of time for discussion of private members' resolutions, and examines Constitution Amendment Bills given notice of by private members before their introduction in the Lok Sabha; (viii) Committee on Absence of Members from the Sittings of the House which considers leave applications of members; (ix) General Purposes Committee which considers and advises the Speaker on matters concerning the affairs of the House; (x) House Committee which deals with residential accommodation, medical aid and other amenities to the members of Parliament; (xi) Library Committee which advises the Speaker on matters pertaining to the maintenance and upkeep of the Parliament Library; (xii) Rules Committee which considers matters of procedure and conduct of business in the House

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and recommends any amendments or addition to the rules of procedure; (xiii) Committee on the Welfare of Scheduled Castes and Scheduled Tribes which considers matters relating to their welfare and watches whether the constitutional safeguards given to them are being properly implemented; (xiv) Joint Committee on Salaries and Allowances of Members of Parliament which deals with salaries and allowances, frames rules in respect of matters like medical, housing, telephone, postal facilities; and (xv) Joint Committee on Offices of Profit which examines the composition and character of the boards and other bodies appointed by the Central and state governments in order to recommend which offices ought to or ought not to disqualify a person from being a member of either House of Parliament.

Ad hoc Committees *Ad hoc* committees are constituted from time to time either by Lok Sabha or by the Speaker to enquire into and report on specific subjects. Examples of such committees are the select or joint committees on bills which are appointed to consider and report on particular bills and the Railway Convention Committee.

Committees of Rajya Sabha The Rajya Sabha also has a similar committee structure except for the fact that it does not have the financial committees and a few other committees, namely the Committee on Absence of Members, the Committee on Private Members' Bills and Resolutions and the Committee on the Welfare of Scheduled Castes and Scheduled Tribes. Members of the Rajya Sabha are, however, associated with two of the financial committees, *viz.*, the Committee on Public Accounts and the Committee on Public Undertakings, and with the Committee on the Welfare of the Scheduled Castes and Scheduled Tribes.

Consultative Committees There are Consultative Committees for different ministries and departments, which provide a forum for discussion between members of Parliament and the ministries. These Committees function in accordance with the guidelines evolved by the Government in consultation with leaders of opposition parties and groups.

THE STATES

The system of government in the states closely resembles that of the Union.

EXECUTIVE The state executive consists of the Governor and the Council of Ministers with the Chief Minister at its head.

Governor The Governor of a state is appointed by the President for a term of five years and holds office during his pleasure. Only Indian citizens above 35 years of age are eligible for appointment of this office. The executive power of the state is vested in the Governor.

The Council of Ministers advises the Governor in the exercise of his functions except in so far as he is by or under the Constitution required to exercise his functions or any of them in his discretion. The discretionary powers of the Governors specifically so stated in the Constitution, are those relating to certain matters concerning the administration of the tribal areas in Assam, Meghalaya and the Tuensang area of Nagaland and the maintenance of law and order in Nagaland. All Governors while discharging such constitutional functions as the appointment of the Chief Minister of a state or sending a report to the

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President about the failure of the constitutional machinery in a state or in respect of matters relating to the assent to a Bill passed by the legislature, have to exercise their own judgment.

Council of Ministers

The Chief Minister is appointed by the Governor, who also appoints other ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to the legislative assembly of the state.

Planning

At the state level, an inter-departmental committee of secretaries headed by the Chief Secretary or Secretary in-charge of planning coordinates development programmes. Generally, the functions of coordination for planning and implementation of programmes in the districts are performed by an officer commonly known as Development Commissioner. As a rule, a committee of the state cabinet under the Chief Minister provides overall guidance and direction. At the state level, the apex body is the State Planning Board, which mostly consists of the Chief Minister as Chairman and ministers and other eminent non-officials as members.

LEGISLATURE

For every state, there is a legislature which consists of the Governor and one House or, as the case may be, two Houses. In Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh, there are two Houses known as the Legislative Council and the Legislative Assembly. In the remaining states, there is only one House known as the Legislative Assembly. Parliament may, by law, provide for the abolition of an existing legislative council or for the creation of one where one does not exist, if the proposal is supported by a resolution of the legislative assembly concerned.

Legislative Council

The legislative council (Vidhan Parishad) of a state comprises not more than one-third of the total number of members in legislative assembly of the state and in no case less than 40 members.[1] About one-third of the members of the council are elected by members of the legislative assembly from amongst persons who are not its members, one-third by electorates consisting of members of municipalities, district boards and other local authorities in the states, one-twelfth by electorates consisting of persons who have been, for at least three years, engaged in teaching in educational institutions within the state not lower in standard than secondary schools and a further one-twelfth by registered graduates of more than three years' standing. The remaining members are nominated by the Governor from among those who have distinguished themselves in the fields of literature, science, art, cooperative movement and social service. The legislative councils are not subject to dissolution but one-third of their members retire every second year.

Legislative Assembly

The legislative assembly (Vidhan Sabha) of a state consists of not more than 500 and not less than 60 members[2] chosen by direct election from territorial constituencies in the state. The demarcation of territorial constituencies is to be done in such a manner that the ratio between the population of each constituency and the number of seats allotted

1. The legislative council of Jammu and Kashmir has 36 members *vide* Section 50 of the Constitution of Jammu and Kashmir.
2. The legislative assembly of Sikkim has 32 members *vide* Article 371 F of the Constitution.

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to it, as far as practicable, is the same throughout the state. The term of an assembly is five years unless it is dissolved earlier.

Powers and Functions

The state legislature has exclusive powers over the subjects enumerated in List II of the Seventh Schedule to the Constitution and concurrent powers over those enumerated in List III. The financial powers of the legislature include authorisation of all expenditure, taxation and borrowing by the state government. The legislative assembly alone has the power to originate money bills. The legislative council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of money bill from the assembly. The assembly can accept or reject the recommendations.

Reservation of Bills

The Governor of a state may reserve any Bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, measures affecting the powers and the position of High Courts, and imposition of taxes on the storage, distribution and sale of water or electricity in inter-state river or river valley development projects should necessarily be so reserved. No bill seeking to impose restrictions on inter-state trade can be introduced in a state legislature without the previous sancton of the President.

Control over Executive

The state legislatures, apart from exercising the usual power of financial control, use all the normal parliamentary devices like questions, discussions, debates, adjournment and no-confidence motions and resolutions to keep a watch over the day-to-day work of the Executive. They also have their Committees on Estimates and Public Accounts to ensure that grants sanctioned by the legislatures are properly utilised.

UNION TERRITORIES

The union territories are administered by the President acting, to such extent as he thinks fit, through an administrator appointed by him.

The Administrators of Andaman and Nicobar Islands, Arunachal Pradesh, Delhi, Goa, Daman and Diu, Mizoram and Pondicherry are designated as Lt.-Governors while the Administrator of Chandigarh is designated as Chief Commissioner. The Lt.-Governor of Goa, Daman and Diu is concurrently the administrator of Dadra and Nagar Haveli. Lakshadweep has a separate administrator.

The union territories of Arunachal Pradesh, Goa, Daman and Diu, Mizoram and Pondicherry have legislative assemblies and councils of ministers. Delhi has a Metropolitan Council and an executive council. Andaman and Nicobar Islands have a Pradesh Council and counsellors appointed from among the members of the Pradesh Council.

The legislative assemblies of the union territories may make laws with respect to matters in the state field, namely, those enumerated in List II or List III in the Seventh Schedule insofar as they are applicable in relation to union territories. Parliament can also make laws with respect to such matters for the union territories.

The Metropolitan Council in Delhi and the Pradesh Council in Andaman and Nicobar Islands have the right to discuss and make recommendations about matters insofar as they relate to Delhi and Andaman and Nicobar Islands, respectively.

ZONAL COUNCILS

The states and union territories on the mainland, except those in the north-eastern region, are grouped into zones. Each zone has a high-

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level advisory body known as the Zonal Council which provides the forum for discussing matters of common interest to the states and union territories in that zone. The states of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and the union territories of Chandigarh and Delhi are in Northern Zone. The Central Zone comprises the states of Madhya Pradesh and Uttar Pradesh while the states of Bihar, Orissa, Sikkim and West Bengal are in the Eastern Zone. The states of Gujarat and Maharashtra and the union territories of Goa, Daman and Diu, and Dadra and Nagar Haveli are in the Western Zone. The Southern Zone comprises the states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the union territory of Pondicherry.

For the north-eastern region there is a body similar to the zonal councils to deal with matters of common interest in the states of Assam, Manipur, Meghalaya, Nagaland and Tripura and the union territories of Arunachal Pradesh and Mizoram. The North Eastern Council, which came into being in August 1972, has certain additional functions. It formulates a unified and coordinated regional plan (which supplements the state plan) covering matters of common importance. In case of projects or schemes intended to benefit two or more states, the Council recommends the manner in which they are executed, managed or maintained, their benefits shared and the expenditure incurred. The Council also reviews from time to time the implementation of the projects and schemes included in the regional plan and recommends measures for effecting coordination among the concerned states and union territories in the matter of implementation of such projects and schemes. The Council normally meets twice a year.

LOCAL GOVERNMENT

Municipal Corporations

In most of the states, corporations have been established for major cities under specific Acts of the state legislature. These are headed by elected mayors. The administration of the city vests in an elected council and the powers of the corporation are exercised by three authorities : (i) general council of the corporation, (ii) standing commitees, and (iii) the municipal commissioner/chief executive officer. The standing committees are elected by the council and carry out most of the work of administration including taxation, finance and preparation of budget, engineering work, health and education services. The power of sanctioning estimates and contracts vests in the three authorities up to specified amounts. The general council appoints most of the officers of the corporation but the municipal commissioner is appointed by the state government. The executive powers of the corporation generally vest in the municipal commissioner, who prescribes the duties of the various officers, and supervises their work. The functions of the municipal corporation include public safety, health, education and other conveniences of the citizens as well as construction and maintenance of water works and sewerage, streets and bridges, parks and recreation grounds, markets and shopping centres and so on. Major corporations also undertake works of housing and land development. There is, however, a growing practice of entrusting these works to special urban development authorities. There were 63 municipal corporations in the country in April 1982. The Calcutta Corporation Act has been recently amended to provide for the system of Mayor-in-Council.

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Municipal Committees and Councils

For all other towns and cities, there are municipalities having elected boards or councils which in turn elect their own presidents. All the members of a municipality constitute general body, which decides all questions of policy and important details of municipal administration. The powers of passing the budget, imposing taxes, voting expenditure and making rules and regulations, vest in the general body. The municipal council, however, mostly functions through committees which exercise delegated powers or make recommendations to the council. The day-to-day work of the municipality is carried on by an executive officer drawn sometimes from state civil service or a state-wise cadre of municipal officers. In many states, however, the municipal councils continue to appoint their own executive officers and other officials.

Local Self-Government in Districts

The system of *Panchayati Raj,* which was introduced in 1959, is generally a three-tier structure of local self-government at the village, block and district levels. The states are, however, free to make changes in the structure to suit local conditions. All *Panchayati Raj* bodies are organically linked up. Special representation on these bodies is given to backward classes, women and cooperative societies. [For Panchayati Raj system, see Chapter on Rural Development.]

Cantonment Boards

Cantonments were established under the Cantonments Act, 1924, to safeguard the health, welfare and security of the Armed Forces personnel, who had to reside in them. The Act also provides for municipal administration for the civilian population in Cantonments and allows representation from the civilian population in Cantonment administration. A Board is constituted in each Cantonment comprising elected, nominated and ex-officio members who function under the administrative and financial control of the GOC-in-C of the Command.

Cantonments are classified as Class I, II and III, depending on the civil population in each case. Of the 62 Cantonments, 30 are Class I, 19 are Class II and 13 are Class III. With the prior approval of the Central Government, Cantonment Boards are empowered to impose such taxes within their area as are being levied by the neighbouring municipality. However, the revenue so realised is, in most cases, not enough to enable the Boards to balance their budgets, they have to be assisted by grants-in-aid from the Central Government.

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4 DEFENCE

India's defence policy aims at promoting and sustaining durable peace in the sub-continent by means of negotiations and cooperation among various countries in the region and at the same time equipping the defence forces as a safeguard against aggression.

The supreme command of the Armed Forces is vested in the President of India. The responsibility for national defence, however, rests with the Cabinet. All important questions having a bearing on defence are decided by the Cabinet Committee on Political Affairs, which is presided over by the Prime Minister. The Defence Minister is responsible to Parliament for all matters concerning defence. The administrative and operational control of the Armed Forces is exercised by the Ministry of Defence and the thrte Services Headquarters. The Ministry of Defence acts as the central agency for ensuring a coordinated development of the three Services, for conveying the Government of India's decisions on policy matters to the three Services Headquarters for implementation and for obtaining financial sanction for defence expenditure from Parliament.

ORGANISATION

The three Services function under their respective Chiefs of Staff. As on 1 August 1983, the Chiefs of Staff were :

CHIEF OF THE ARMY STAFF	General A.S. Vaidya
CHIEF OF THE NAVAL STAFF	Admiral O.S. Dawson
CHIEF OF THE AIR STAFF	Air Chief Marshal Dilbagh Singh

Army

At the Army Headquarters in New Delhi, the Chief of the Army Staff is assisted by the Vice-Chief of the Army Staff and five other Principal Staff Officers-Deputy Chief of the Army Staff, Adjutant-General, Quartermaster-General, Master-General of Ordnance and Military Secretary and a Head of Branch, namely, Engineer-in-Chief.

The Army is organised into five Commands—Western, Eastern, Northern, Southern and Central—each under a General Officer Commanding-in-Chief of the rank of Lieutenant-General. The Commands are divided into Areas, Independent Sub-Areas and Sub-Areas. An

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Area is commanded by a General Officer Commanding of the rank of Major-General and an Independent Sub-Area and a Sub-Area by a Brigadier.

The Army consists of a number of arms and services. These are: President's Body Guard, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals, Infantry, Army Service Corps, Military Nursing Service, Army Medical Corps, Army Dental Corps, Army Ordnance Corps, Corps of Electrical and Mechanical Engineers, Remount and Veterinary Corps, Military Farm Services, Army Education Corps, Intelligence Corps, Corps of Military Police, Army Physical Training Corps, Pioneer Corps, Army Postal Service Corps and Defence Security Corps.

From 1 October 1981, a new system of recruitment to the Army has been introduced under which candidates having prescribed physical and medical standards also appear in a literacy and physical efficiency test conducted by a board of officers. This is aimed at eliminating subjective assessment and taking the best available talent in keeping with the need for modernisation of the Army.

Navy

The operational control of the Navy is exercised by the Naval Headquarters in New Delhi through a chain of three commands.

At the Headquarters, the Chief of the Naval Staff is assisted by four Principal Staff Officers, namely, the Vice-Chief of the Naval Staff, Chief of Personnel, Chief of Material and Deputy Chief of the Naval Staff.

The Navy is organised into three Naval Commands under Flag Officers Commanding-in-Chief: Western Naval Command with headquarters at Bombay, Eastern Naval Command with headquarters at Visakhapatnam and Southern Naval Command with headquarters at Cochin.

The Navy has two Fleets—the Western Fleet and the Eastern Fleet. The two Fleets consist of the aircraft-carrier, the refitted *INS Vikrant,* one destroyer *INS Rajput,* a number of frigate squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates, a squadron of anti-submarine patrol vessels, one mine-sweeping squadron, submarines, a submarine depot ship and smaller and specialised vessels under construction at various shipyards in the country. The Navy has a sizeable air wing with various types of fixed wing aircraft and helicopters. Besides, there are some survey ships, two fleet tankers and a number of auxiliary craft. The survey units of the Navy carry out a survey of India's coast and approaches to the harbours. A Naval organisation is functioning at Port Blair to ensure the security of the Bay Islands. The Navy has taken over the responsibilities for maritime reconnaissance from the IAF and has also acquired some aircraft for the purpose.

The Naval Dockyard at Visakhapatnam, one of the largest in Asia, is fully operational and is being expanded to cater to all ships and submarines. The second phase of the modernisation and expansion of the naval dockyard at Bombay is also in progress. Since 1964, India has been building her own naval ships and craft. The construction programme of six Leander Class Frigates has been completed with the commissioning of *INS Vindhyagiri* in 1981. The first of two *Godavari* class ships, indigenously designed by the Indian Naval Design Organisation, have been launched at the Mazagoan Dock, Bombay.

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The Navy's role has grown manifold in view of increasing economic interest to exploit the ocean wealth and of continued growth of merchant marine and fishing fleet. The recent developments in the Indian Ocean and in neighbouring countries have also posed new challenges for which Naval plans have been oriented towards adequate coastal defence, ocean-going and under-water capabilities.

Coast Guard

The Coast Guard was formally constituted as an Armed Force of the Union on 19 August 1978 primarily to protect the national interests in the maritime zones of India. The Service which is under the administrative control of the Ministry of Defence has its headquarters located in New Delhi. The Director-General of the Coast Guard exercises his operational command through three regional headquarters located in Bombay, Madras and Port Blair and 10 Coast Guard District headquarters, one in each of the eight coastal states on the mainland and two in the Andaman and Nicobar Islands.

Air Force

The Indian Air Force is organised into six Commands. These are: Western Air Command, South Western Air Command, Central Air Command, Eastern Air Command, Training Command and Maintenance Command.

At the Air Headquarters in New Delhi, the Chief of the Air Staff is assisted by five Principal Staff Officers, namely, Vice Chief of the Air Staff, Deputy Chief of the Air Staff, Air Officer-in-Charge, Administration, Air Officer-in-Charge, Maintenance, and Air Officer-in-Charge, Personnel. Each of them controls a group of Directorates.

The Air Force combat fleet, which is made up of 45 squadrons, consists of a variety of fighters, fighter-bombers, fighter interceptors, bombers and transport and logistics support aircraft. Among the fighter aircraft are SU-7s, Hunters, Gnats, Ajeets, MiG-21s, MiG-23s, Jaguars and HF-24s. Canberras comprise the bomber fleet. The new combat aircraft, Jaguar, has been inducted into IAF to replace Hunters and Canberras. The transport fleet consists of AN-12s, Dakotas, Fairchild Packets, Caribous, Otters, TU-124s and Indian built HS-748s and recently acquired Boeing-757. Helicopters in use are MI-4s, MI-8s, Cheetas and Chetaks, the last two being built in India. The aircraft used for training purposes are HT-2 Basic Trainer, HJT-16 (Kiran) Jet Trainer and HS-748 Transport Trainer, all built in India, and the Polish Iskras.

A Soviet supersonic combat frighter-bomber, MiG-23, was inducted in January 1981 and has became fully operational. The Government has also decided to acquire Mirage-2000 aircraft from France as the combat aircraft of the 'eighties, with option to manufacture indigenously the aircraft, its engine and other systems. It has also been decided to replace all subsonic combat aircraft of the Air Force by supersonic aircraft within a few years.

The Indian Air Force, which began humbly with four Westland Wapiti aircraft in Karachi in 1932, observed its Golden Jubilee in 1982. It has acquired a number of modern weapons to sharpen its combat teeth and is equipping selected airfields with Ground Control Approach Systems to enable landing in poor visibility. It is also updating communication facilities and navigational aids. It is fitting transport and multi-engined aircraft with modern avionic system to ensure flight safety and optimise flight plans and is gradually replacing

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older avionic systems. The radar system is also being modernised.

COMMISSIONED RANKS

The following are the commissioned ranks in the three Services; each rank is shown opposite to its equivalent in the other Services.

Army	Navy	Air Force
General	Admiral	Air Chief Marshal
Lieutenant General	Vice Admiral	Air Marshal
Major General	Rear Admiral	Air Vice Marshal
Brigadier	Commodore	Air Commodore
Colonel	Captain	Group Captain
Lieutenant Colonel	Commander	Wing Commander
Major	Lieutenant Commander	Squadron Leader
Captain	Lieutenant	Flight Lieutenant
Lieutenant	Sub-Lieutenant	Flying Officer
Second Lieutenant	Acting Sub-Lieutenant	Pilot Officer

TRAINING INSTITUTIONS

National Defence Academy

The National Defence Academy (NDA), Khadakvasla, conducts a three-year combined basic military training course for potential officers of the three Services after which they receive specialist training at their respective Service establishments. The cadets are also trained to the degree level of an Indian university. Admissions to the Academy are made on the basis of a qualifying bi-annual written examination conducted by the Union Public Service Commission at different centres in the country, followed by assessment by a Services Selection Board. Boys who have passed the Higher Secondary or an equivalent examination and are between 16 and 18½ years of age on the first day of the month in which the course starts are eligible for admission. They must be unmarried and should remain so during the period of their stay at the Academy.

Defence Services Staff College

The Staff College, Wellington provides training to officers of the Army, the Navy and the Air Force for holding staff appointments in their own Services as well as in inter-Services headquarters. About 300 officers from the three Services, including 26 foreign officers and 4 civilian officers, are trained every year.

National Defence College

The National Defence College, New Delhi trains senior officers of the three Defence Services, including a few from foreign countries and senior civilian officers, in politico-military studies connected with national security at the strategic level.

Armed Forces Medical College

The Armed Forces Medical College, Pune, conducts an MBBS course and a degree course in nursing. It also conducts advanced courses in various disciplines of medical sciences, each of 99 weeks' duration, for Armed Forces medical officers to enable them to specialise in their respective fields and also to make them eligible to appear for post-graduate degree and diploma examinations of Pune University. Likewise, long courses are being conducted in various disciplines of Dental Surgery leading to MDS degree of Bombay University.

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Army Colleges and Schools

The Indian Military Academy (IMA), Dehra Dun, is the premier institution for training officers for the Army. Its intake includes cadets passing out of the National Defence Academy, Khadakvasla, who receive one year's training before being commissioned. The IMA holds 1½ years' courses for higher age-group entrants who have either qualified in the Union Public Service Commission's examination or are graduate cadets of the National Cadet Corps and have thereafter qualified at the Services Selection Board. Graduates, selected for specialised commissions in various technical arms, are given one year's training at IMA. A year's training is also imparted at IMA to serving Regular or Territorial Army Junior and Non-Commissioned Officers (JCOs and NCOs), who have successfully completed the three-year training course at the Army Cadet College on completion of the training at IMA, these personnel are granted commission in the Army. The other ranks are selected earlier for their officer-like qualities and general academic and educational standard.

The College of Combat, Mhow, conducts the Higher Command Course, the Senior Command Course and the Junior Command Course. The College of Military Engineering, Kirkee, imparts training to officers and other ranks in all aspects of military engineering. Longer courses of over two years' duration are also conducted to train officers up to the degree standard. The Military College of Telecommunication Engineering, Mhow imparts basic and advanced technical training in telecommunications and signal tactics.

The Armoured Corps Centre and School, Ahmednagar, conducts training in the tactical handling of armoured fighting vehicles and their driving and maintenance. The School of Artillery, Deolali, provides training in field branch and air defence artillery. The Infantry Schools at Mhow and Belgaum conduct courses for infantry officers and men. The Army Ordnance Corps School, Jabalpur imparts specialised corps training in the identification and preservation of all items, including ammunition and explosives, stocked by the ordnance depots.

The Institute of Defence Management, Secunderabad trains Service and civilian officers in modern defence management techniques.

Some of the other Army training centres and schools are : the High Altitude Warfare School, Gulmarg; the Army Service Corps School, Bareilly; EME School, Vadodara; Military College of Electronics and Mechanical Engineering, Secunderabad; Remount and Veterinary Corps Centre and School, Meerut; Army Educational Corps Training College and Centre, Pachmarhi; Intelligence Training School and Depot, Pune; Corps of Military Police Centre and School, Bangalore; Army School of Physical Training, Pune; Army Air Transport Support School, Agra; and the Army Clerks Training School, Aurangabad. The foundation stone of an Air Defence and Guided Missile School was laid at Gopalpur-on-Sea on 25 April 1983.

Naval Training Establishment

The principal training centres for the officers and men of the Navy are located at Cochin. These impart training in gunnery, navigation, torpedo and anti-submarine warfare, communications and aviation.

Mechanical engineers and artificers are trained at *INS Shivaji* at Lonavla (Maharashtra). Junior engineers and electrical officers of the Service receive training at the engineering college at Lonavla.

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INS Valsura, Jamnagar, trains officers and men of the electrical branch of the Service. With most of the ships now fitted with sophisticated electronic equipment, training has been geared to the present requirements of the Navy.

New recruits joining the Navy are trained at *INS Chilka* near Bhubaneswar and on completion of their courses become sailors. Sea training is imparted by the two Fleets. Officers and men doing supply and secretariat duties are trained at *INS Hamla*, Malad, Bombay.

To meet the increasing training requirements, a Naval Academy has been established at Cochin. A decision to shift the Naval Academy to Ezhimala in Kerala has been taken. A Sailors' Training Establishment has been set up at Dabolim in Goa. The First Training Squadron has been raised to give sea training to officers and seamen.

Air Force Training Institutions

The basic flying training for pupil pilots is imparted at the Elementary Flying School, Bidar (Karnataka), and the advanced flying training at the Air Force Academy, Hyderabad, or Fighter Training Wing, Hakimpet (for alternate courses). Pupil pilots who do not come through NDA, such as ex-airmen and NCC cadets, undergo pre-course training at Air Force Administrative College, Coimbatore, before starting basic flying training. Wings and Commissions are given on completion of the advanced stage. Thereafter, these trainee officers are divided into three streams for the final applied stage of flying training—the fighter stream at Air Force Academy, Hyderabad or the Fighter Training Wing, Hakimpet (for alternate courses), the transport stream at the Transport Training Wing, Yellahanka, and the helicopter stream at the Helicopter Training School, Hakimpet. *Ab initio* navigation training, advanced navigation training and air signallers' training is given at the Navigation and Signals Schools, Hyderabad. Ground Duties (non-technical) officers and TAC officers are trained at the Air Force Academy, Hyderabad. Senior Non-Commissioned Officers, selected for commission in their respective Ground Duties Branch, undergo a short pre-commissioning course at the Air Force Administrative College. Flying instructors are trained at the Flying Instructors' School, Tambaram. A College of Air Warfare, Secunderabad, conducts higher joint services and air warfare studies.

The Air Force Administrative College, Coimbatore, runs advanced courses for Ground Duties (non-technical) officers and the Junior Commanders' course for all branches. Technical officers are trained at the Air Force Technical College, Jalahalli. A school at Sambra near Belgaum trains airmen in accounting, equipment, general office duties, drill and catering. Another school at Sambra trains officers and airmen in physical fitness and sports.

Institutes at Jalahalli train airmen in radar, radio, electrical instruments, photo, meteorology, air field safety, driving and police duties. Another school at Tambaram trains airmen in mechanical trades such as air frames, engines, armament and safety equipment. Motor mechanics are trained at another ground training school at Avadi. Ground training institutes at Vadodara and Barrackpore prepare personnel to man surface-to-air missiles and associated equipment. Paratroopers for air-borne units of the Army are trained at the Paratroopers Training School, Agra.

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Medical and aircrew officers receive specialised training at the Institute of Aviation Medicine, Bangalore.

Rashtriya Indian Military College

Run on the lines of public schools, the Rashtriya Indian Military College, Dehra Dun, prepares boys who desire subsequently to choose a military career for entrance examination to the National Defence Academy.

Sainik Schools

The Sainik Schools prepare boys academically, physically and mentally for entry into the National Defence Academy. There are 18 Sainik Schools in the country, one in each state, except in Nagaland, Meghalaya, Tripura and Sikkim. These Schools are affiliated to the Central Board of Secondary Education and follow the 10 plus 2 pattern of education. Admission is made to class VI on the basis of an All India Entrance Examination. The total strength of boys at present is about 9,500.

SUPPLIES, PRODUCTION AND RESEARCH

A substantial part of the defence stores needed by the Services is now being developed and produced in the country. The responsibility for this has been entrusted to two separate Departments—Defence Production and Defence Supplies—in the Ministry of Defence. The Department of Defence Production organises, directs and coordinates production of material and equipment required by the Armed Forces. It carries out its responsibility through the Directorate of Technical Development and Production, Ordnance Factories, Inspection, Standardisation, Defence Research and Development Organization and nine public sector undertakings.

Ordnance Factories

Ordnance factories are amongst the oldest integrated industrial establishments, widely dispersed geographically all over the country. There are 33 ordnance factories functioning as departmental undertakings under the Department of Defence Production. The main thrust of the ordnance factories is aimed at meeting the twin objectives of modernisation of equipment and achieving of maximum degree of self-reliance and self-sufficiency. These factories produce a wide variety of items covering broad spectrum of technology for the Defence Services, paramilitary forces and civil police. The range of production covers sophisticated anti-tank and anti-aircraft guns and other various types of guns, small arms and related ammunition, pyro-technical stores, transport vehicles, armoured vehicles, optical and fire control instruments, bridges, assault boats and various general and non-lethal stores and software items.

Production in ordnance factories has registered a steady growth over the past few years. Gross value of production increased from Rs 671 crore in 1980-81 to Rs 786 crore during 1981-82 registering a growth rate of 17.6 per cent. It is estimated that the value of production during 1982-83 will further go upto Rs 860 crore. Apart from the significant increase in terms of value, there has been a notable increase in the quantum of production of important new items of equipment. A number of new and sophisticated items have been taken up for production.

Consistent with the need of the Defence Services to modernise the equipment and to keep abreast of the fast changing m[illegible], technology, the ordnance factories are updating their t[illegible]gy and establishing production of new and more sophistic[illegible]ipments. A project for improved testing facilities for ve[illegible]entation of

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capacity for field gun ammunition, augmentation and modernisation of brass melting capacity to meet increased requirement for cartridge cases, are under way. The project for a new factory for production of infantry combat vehicle is under implementation. Production is being established of a new weapon system along with connected ammunition to replace the Second World War vintage anti-tank system. A project for the production of a new battle tank is also under implementation.

Ordnance factories had entered into an agreement with HMT for rendering consultancy services in foreign countries in the field of tool production and efforts are continuing to explore further possibility of collaboration in this field.

Defence Undertakings in Public Sector

There are nine public sector undertakings under the Ministry of Defence, which have continued to grow. As on 30 September 1981, 96,864 persons were employed in these undertakings. These are making substantial contribution towards self-reliance in sophisticated items for the defence services. During 1981-82, these undertakings produced items worth about Rs 776.42 crore.

The establishment of indigenous manufacturing facilities for a number of items has stimulated sophisticated technology in the country such as sophisticated aircraft of various types, electronics, communication equipments, radar and professional grade components, warships and merchant ships, dredgers, tugs and cargo bulk carriers, marine diesel engines, deck machinery for ships, heavy earth moving equipment of various types, and anti-tank missiles and machine tools.

The Hindustan Aeronautics Ltd. (HAL), set up in 1964, has 11 factories in six different states. Six factories, including the unit at Barrackpore in West Bengal, comprise the Bangalore complex of HAL. Two factories at Koraput and Nasik, comprise the MiG complex. The factories at Lucknow and Hyderabad form the accessories complex and the one at Kanpur manufactures the military freighter version of HS-748 aircraft and the low-wing agricultural aircraft, Basant, designed and developed for aerial application of pesticides and fertilizers. The HAL is currently manufacturing the improved version of the Gnat jet fighter, Ajeet, the jet trainer Kiran, the trainer HPT-32, the supersonic jet intercepter, MiG-21M, the Alouette III helicopter, Chetak and the light-weight helicopter for AOP role, Cheetah. The Company has indigenised 2,500 items so far. It has also been assigned the manufacture of Adour engines and Airframes for the Jaguar International aircraft for which preliminary action was taken in 1979. The first indigenously assembled Jaguar was test-flown successfully in March 1982.

The Bharat Electronics Ltd. (BEL) has three units—Bangalore, Ghaziabad and Pune. Its Bangalore unit, which began production in 1956 with just two electronic items, has diversified its products which range from the tiny transmitters to highly sophisticated radars. Among the electronic components manufactured by it are radio and television receiving valves, germanium and silicon transistors and diodes, X-ray tubes and TV picture tubes. The unit at Ghaziabad, set up in 1973, manufactures electronic equipment to meet the needs of Defence Services and microwave communication sets of various departments of Central and state governments. BEL's third unit set up at Pune manufactures image intensifiers and image converter tubes. The com-

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pany has received approval for setting up two new factories in Haryana and Garhwal district of Uttar Pradesh and one factory for the manufacture of glass shells for black-and-white TV picture tubes at Taloja in Maharashtra.

The Mazagon Dock, Bombay, the Goa Shipyard, Goa and the Garden Reach Shipbuilders and Engineers, Calcutta are building and repairing ships, dredgers, barges and tugs. The Mazagon Dock has completed the sixth Leander class frigate for the Navy and the first indigenously designed *Godavari* class frigate was launched on 15 May 1980. Under its expansion scheme, it has added two ship-building berths, an impounded wet dock capable of taking four medium sized ships at a time, besides new production and assembly shops with modern machinery. The company has also diversified in the field of manufacture of off-shore fixed platforms for the Oil and Natural Gas Commission. It can now handle up to 60 ships a month for voyage repairs. The Garden Reach Shipbuilders and Engineers (GRSE), Kidderpur, Calcutta builds ocean-going cargo ships up to 26,000 DWT, large capacity dredgers, and other harbour craft like tugs and barges, besides seaward defence boats and survey vessels for the Navy. They are also building patrol boats for the Indian Customs. The first bulk carrier for the Moghul Lines Ltd., *Lok Priti* was handed over in December 1981. The second has been launched and the keel of the third laid. GRSE completed and handed over the Survey Vessel *Sandhyak* to the Navy and a Seaward Defence Boat to the Coast Guard during 1980-81. The Goa Shipyard Ltd., is now capable of building barges up to 1,000 DWT, small dredges, fishing trawlers, tugs and other harbour craft. It delivered to the Indian Navy the first landing craft utility in January 1980 and the first exploratory vessel to the Ministry of Agriculture in March 1980.

The Bharat Dynamics Ltd. (BDL), Hyderabad incorporated in 1970 for laying a technological and production base for the manufacture of guided missiles, commenced production with foreign collaboration in 1971. Since then, the undertaking has achieved 72 per cent indigenisation in making the first generation anti-tank guided missiles (ATGMs) and 82 per cent for its warhead. The delivery programme for the first generation ATGMs to the Army has been completed. BDL has also taken up the production of rockets and torpedoes for the Navy as well as a variety of items required for the various services.

The Bharat Earth Mover Ltd. (BEML), Bangalore, extends all possible assistance to small scale industries by placing orders for components, tools and sub-assemblies to the maximum extent possible. The Company has also been extending assistance by way of supply of raw materials, components, tools, gauges, facilities for inspection and testing and also technical guidance as found necessary. It exported earth-moving equipment, rail coaches and spares to Bhutan, Bulgaria, Burma and Sri Lanka.

The Praga Tools, Hyderabad, manufactures drilling tools, cutter grinders, surface grinders, milling machines, machine tool accessories, auto-diesel spares, forgings and castings for the civil industry and the railways.

The Mishra Dhatu Nigam Ltd. (MIDHANI), Hyderabad, was incorporated in 1973 to set up indigenous capabilities for the manufacture of a wide range of sophisticated and strategic special metals and super alloys, in various shapes and sizes as required by several vital industrial sectors, such as nuclear energy, power generation, aeronautics,

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space, electronics, chemical engineering and instrument industries. The factory started trial production in 1979-80.

Research and Development

The Defence Research and Development Organisation (DRDO) was established in 1958 by amalgamating some of the then existing technical development establishments with the Defence Science Organisation. The principal responsibilities of DRDO relate to the design and development of new and sophisticated weapons and equipment, based on the operational requirements projected by the Services and to provide help in their indigenous production. DRDO has a network of 39 well equipped establishments/laboratories and a few field units engaged in research and development activities in a wide span of disciplines, *viz.*, armaments, explosives and propellants, rockets and missiles, electronics, aeronautics, naval science and technology, structural and civil engineering, vehicles, materials, agricultural and biomedical sciences.

The DRDO and its laboratories are administered by the Department of Defence Research and Development. The Department under the Scientific Adviser to *Raksha Mantri* (Minister for Defence) and Secretary Defence Research and Development is also responsible for rendering advice to *Raksha Mantri*, the three Services and inter-services organisations on military operations, equipment and logistics and for formulation of research, design and development plans on various disciplines of importance to Defence.

TERRITORIAL ARMY

The Territorial Army, established in 1949, is designed to give the citizens an opportunity to receive military training in their spare time. The Territorials serve the country in times of emergency by relieving the regular army of static duties, by aiding the civil power in dealing with natural calamities, by maintaining essential services in critical situations which threaten the life of the community or security of the country and by providing units to the regular Army, if and when required. It is a voluntary force composed of various units. The Territorial Army is not required to perform military service outside India save under a general or special order of the Central Government.

All able-bodied nationals of India in the age group of 18 to 35 (with relaxation in the upper age limit for entry into certain technical units), and possessing the requisite qualifications, are eligible to join the Territorial Army as officers or other ranks.

NATIONAL CADET CORPS

The National Cadet Corps (NCC), established in 1948, is a youth organisation, entry to which is open to students of universities, colleges and schools on a voluntary basis. It aims at development of qualities such as leadership, character, comradeship, spirit of sportsmanship and the ideal of service among the youth and creation of a force of disciplined and trained citizens, who, in a national emergency, could be of assistance and act as second line of defence of the country. The cadets and the NCC commissioned officers have no liability for active military service. Adventure training, including mountaineering and trekking expeditions, cycle expeditions, para-training, gliding, powered flying, para-sailing, etc., and social service receive emphasis in the training being imparted to cadets. For the past few years a Youth Exchange Programme with Canada is also being implemented.

NCC consists of three Divisions—Senior, Junior and Girls. The present authorised strength of the corps in Senior Division is four lakh

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cadets (Army 3,13,800; Navy 12,600; Air Force 11,600 and Girls 62,000). The Junior Division has an authorised strength of seven lakh cadets (Army 5,31,900; Navy 49,100; Air Force 52,000 and Girls 67,000).

At the Centre, the Directorate-General, NCC, headed by an officer of the rank of Major General, is responsible for functioning of the NCC in the country. At the state level the country has been divided into 16 Directorates, which cover all the states/union territories. A Directorate is headed by an officer of the rank of Brigadier/equivalent from the other Services.

WELFARE OF EX-SERVICEMEN

The Director-General of Resettlement in the Ministry of Defence looks after the resettlement of ex-Servicemen in government and private services, vocational and technical trades, land, colonies and transport service. The Central Government has reserved 10 and 20 per cent posts in Grade C and D, respectively, under it for them. The percentage in the central public sector undertakings in these categories is 14½ and 24½ per cent respectively. The state governments have also reserved a certain percentage of vacancies for the ex-Servicemen.

To increase the re-employment prospects an ecological task force in hilly areas of Uttar Pradesh and another in Rajasthan for Bikaner area and a peace keeping force in Bihar consisting exclusively of ex-Servicemen have been raised. Two more ecological units are to be raised, for Himachal Pradesh and Jammu and Kashmir.

To encourage self-employment, several schemes are being implemented in stages. These include establishment of ex-Servicemen's cooperative industrial estates in selected areas, setting up of industrial and shopping centres by using surplus military land, reservation of factory plots and formation of special industrial projects. There are also other schemes in operation which train ex-Servicemen who prefer employment in professions needing background, expertise and know-how. An 'on-the-job' training programme was launched in March 1981. Under this programme, selected retiring personnel are being imparted nine months intensive training in ten trades in public sector undertakings. These include training in industrial and agricultural skills, animal husbandry, teaching and social work.

A new scheme known as PEXSEM (Preparing Ex-Servicemen for Self-Employment) was introduced on 1 April 1983 on a pilot basis in six districts, one each in Punjab, Haryana, Rajasthan, Himachal Pradesh, Uttar Pradesh and Tamil Nadu. Under this Scheme, the ex-Servicemen will be provided necessary training/guidance and other assistance to set up their self-employment ventures in rural areas.

The Directorate also helps ex-Servicemen in procuring new vehicles, tractors, surplus army vehicles, repairable duplicators and typewriters and agencies of products of public sector undertakings like fertilizers, tea, cement, cooking gas, steel and textiles. For those having farming background, a scheme has been taken up to settle them in the Great Nicobar Island in the Bay of Bengal and about 330 ex-Servicemen have already been settled there.

An important organisation which assists ex-Servicemen and their families, in close liaison with the local administration, is the Soldiers', Sailors' and Airmen's Board. The Board, with its headquarters in New Delhi co-ordinates the activities of the corresponding state boards. A number of central funds like the Flag Day Fund, the Armed Forces

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Benevolent Fund and the Armed Forces Reconstruction Fund are also used for the rehabilitation of ex-Servicemen.

To meet the socio-economic requirements of defence personnel on retirement and to provide financial assistance to the bereaved families, the Government has introduced a Group Insurance Scheme with nominal premium. The scheme is compulsory and covers death in war.

REHABILITATION OF WAR VICTIMS

Following the Indo-Pak war in December 1971, both the Central and state governments formulated a number of schemes to extend benefits and facilities to the war-bereaved families, particularly the widows, the disabled and their dependents. A special organisation in the Ministry of Defence has been created to coordinate action on the various schemes. Among the important central schemes is one which allows liberal pension concessions for the widows and families of officers and men killed in action and for those disabled. The scheme, which came into operation from 1 February 1972, covers all those affected in military operations since the Pakistani aggression in Jammu and Kashmir in 1947. This apart, the Central Government is to meet the full cost of education up to the first degree of the dependents of all the personnel of the defence and para-military forces killed or permanently disabled. It would also bear the full cost of such dependents as have already taken up post-graduate courses.

Other schemes, which are in addition to existing concessions, relate to priority in obtaining employment under the Central Government and public undertakings. Disabled servicemen are entitled to concessions in age, educational qualifications and medical standards.

Two family members of each serviceman killed in action will be given Class III and Class IV jobs under the Ministry of Defence without registration at the Employment Exchange. Seats have also been reserved for them in technical institutions.

State schemes include cash grants, ex-gratia allotment of land for agricultural purposes and residential plots on concessional rates.

Necessary Government orders have been issued to the effect that while fixing the pay of ex-Servicemen on re-employment, the first Rs 250 of their pension will be exempted in the case of officers. In the case of personnel below the rank of Commissioned Officers, their entire pension will be exempted for the purpose of pay fixation.

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5 EDUCATION

Before 1976, education was exclusively a responsibility of the states, the Central Government being concerned directly with certain areas like coordination, determination of standards in technical and higher education, etc. In 1976, by a constitutional amendment, education became the joint responsibility of the Central and state governments. However, the primary responsibility continues to be that of the states. Apart from this, the Union Government continues to administer the central universities, institutions of national importance, and other scientific and technical institutions. It has also the responsibility for promotion of education of the weaker sections, particularly scheduled castes and scheduled tribes.

EDUCATIONAL POLICY

The national policy on education, 1968 has been accepted by the Government as guiding principle for all educational development in the country supplemented by the guidelines adopted in the Sixth Plan document.

The programmes spelt out in the national policy on education are being implemented by the Central and the state governments with such modifications and adjustments as are warranted from time to time by the socio-economic conditions in the country. Most significant of these programmes are universalisation of elementary education and eradication of adult illiteracy. Both these form part of Centre's minimum needs programme as well as the Revised 20-Point Programme.

For the discharge of its specific responsibility, the Union Ministry of Education has been acting directly by itself and through its institutions like the University Grants Commission, National Council of Educational Research and Training, etc. The aims and objectives of these institutions have been, by and large, to bring about improvement of standards of education and training at various levels or to promote specific areas of education like languages, production of books, etc.

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EDUCATIONAL PLANNING

Besides policy formulation, the Ministry of Education and Culture also shares with the state governments the responsibility for educational planning. In all the previous Five Year Plans, education was taken to be a social service rather than an input in the development process. There was a change in the emphasis beginning with the Sixth Plan, wherein it has been considered to be pivotal in the social and economic development of the country through development of human resources.

Priority has been given by the Government to the programme of universalisation of elementary education with emphasis on programmes for the weaker sections including girls, scheduled castes, scheduled tribes, etc. Another important priority area in education is promotion of adult education. Both these programmes form a part of the Revised 20-Point Programme. In regard to other sectors, stress is being laid on qualitative improvement of education, especially the technical and higher education, promotion of sports, games and physical education, development of youth activities, vocationalisation of secondary education, development of regional languages, strengthening of the monitoring and evaluation machinery for the effective implementation of Plan programmes, etc. There will be an added emphasis on establishing dynamic and beneficial linkages between education, employment and development of health and social welfare.

The Planning Commission approved an outlay of Rs 2,524 crore for education for the Sixth Plan. This is 2.6 per cent of the total outlay of the Plan. Taking together actual expenditure of Rs 339 crore in 1980-81 and Rs 443 crore in 1981-82, anticipated expenditure of Rs 698 crore in 1982-83 and the approved outlay of Rs 678 crore in 1983-84, the likely utilisation of Plan funds in the first four years of the Plan period will be Rs 2,152 crore, i.e. about 84.9 per cent of the total Sixth Plan outlay on education.

According to the available budget estimates for 1982-83, the total budgeted expenditure of the Centre and the states on education works out to be Rs 5,251.44 crore, and this forms 9.6 per cent of their total budget estimates.

The detailed achievements and targets of education have been shown in table 5.1.

Literacy

In 1951, 16.6 per cent of the people in India could read and write. The percentage went up to 29.45 in 1971 and 36.23 in 1981 (excluding Assam). According to the 1981 census, Kerala had the highest literacy rate i.e. 69.17 per cent, with Maharashtra and Tamil Nadu coming next with 47.37 per cent and 45.78 per cent, respectively. Chandigarh led the union territory with a percentage of 64.68. Despite the rise in the literacy rate and the total number of literates, the number of illiterates had increased (excluding Assam) from 37.23 crore in 1971 to 42.43 crore in 1981, due to an ever growing population.

Kerala topped the states in women's literacy also, the percentage being 64.48. Maharashtra with 35.08 and Punjab with 34.14 came second and third, respectively. Among the union territories, the first place was held again by Chandigarh with 59.30 per cent.

ELEMENTARY EDUCATION

The highest priority has been given to the programme of universalisation of elementary education *i.e.* fulfilment of the constitutional

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TABLE 5·1

ACHIEVEMENT AT DIFFERENT LEVELS OF EDUCATION

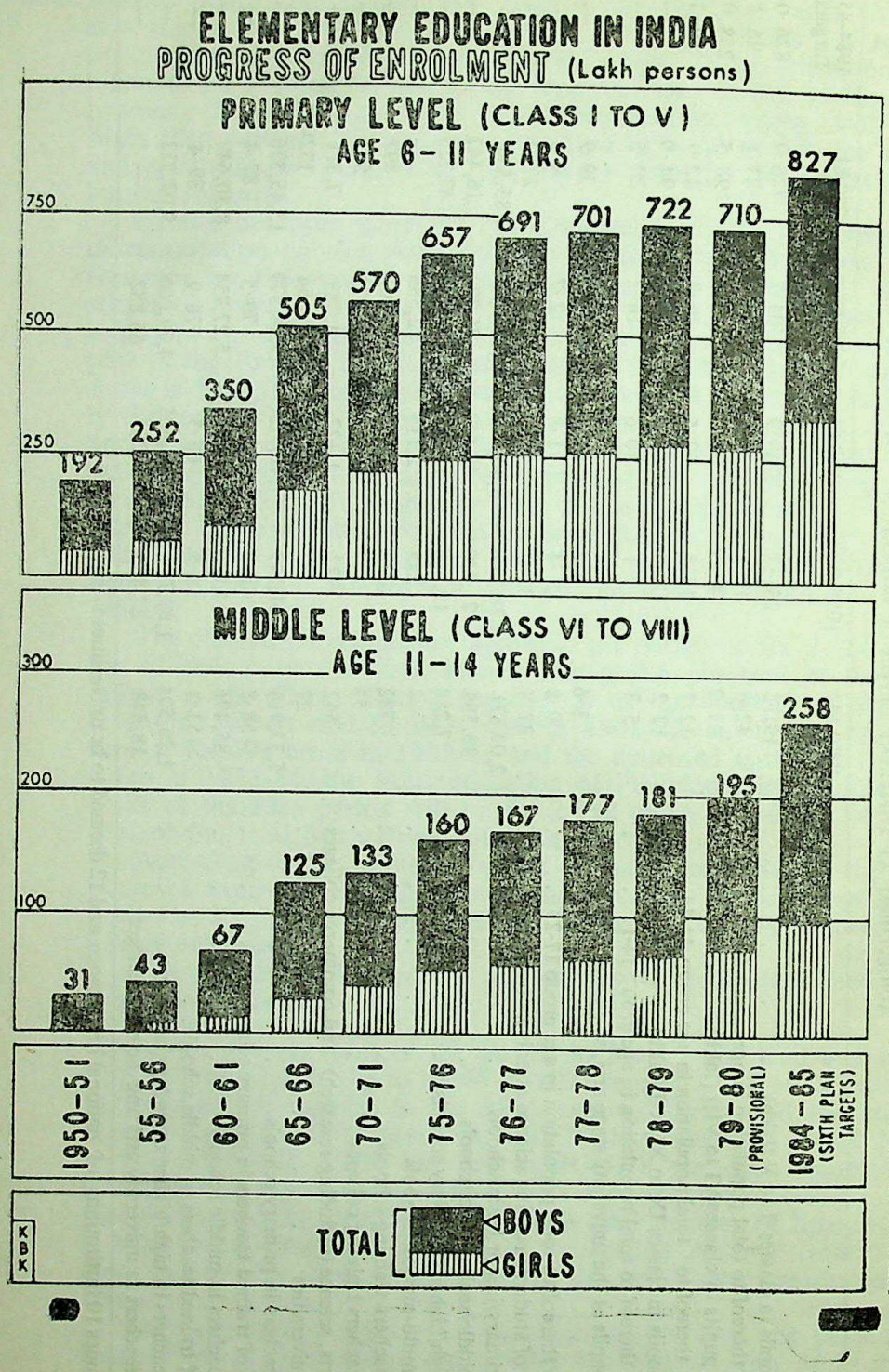
	1950-51	1955-56	1960-61	1965-66	1980-81	1984-85 Targets
Number of pupils in classes I to V (lakh)	191·5	251·7	349·9	504·7	726·9	826·0
Percentage thereof to total population in age group 6-11	42·6	52·8	62·4	76·7	83·1	95·2
Number of pupils in classes VI to VIII (lakh)	31.2	42·9	67.0	105.3	198·5	258.0
Percentage thereof to total population in age group 11-14	12·7	16·5	22·5	30·8	40·0	50·3
Number of pupils in classes IX to XI/XII (lakh)	12·2	18·8	28·9	50·4	94·9	—
Percentage thereof to total population in age group 14-17	5·3	7·4	10·6	16·2	20·5	—
Number of pupils at the university stage arts, science and commerce (lakh)	3·6	6·3	8·9	14·9	39·9	—
Percentage thereof to total population in age group 17-23	0·8	1·4	1·8	2·7	4·8	—
Percentage of students reading science at university stage	37·8	33·0	26·9	29·5	27·0	—
Number of primary/junior basic schools	2,09,671	2,78,135	3,30,399	3,91,064	4,85,538	—
Number of middle/senior basic schools	13,596	21,730	49,663	75,798	1,16,447	—
Number of high/higher secondary schools	7,288	10,838	17,257	27,477	47,755	—
Number of multi-purpose schools	—	255	2,115	2,386	—	—
Number of teachers training schools	782	930	1,138	601	897	—
Number of teachers training colleges	53	107	478	1,272	500	—
Number of arts, science (including research) and commerce colleges	542	772	1,122	1,788	7,311	—
Number of universities	27	32	45	64	132[1]	—
Number of teachers in primary schools	5,37,918	6,91,249	7,41,515	9,44,377	13,45,376	—
Percentage of trained teachers in primary schools	58·8	61·2	64·1	70·5	87·4	—
Number of teachers in middle schools	85,496	14,839	3,45,228	5,27,754	8,30,649	—
Percentage of trained teachers in middle schools	53·3	58·5	66·5	76·9	89·4	—
Number of teachers in high/higher secondary schools	1,26,504	1,89,794	2,96,305	4,79,060	9,02,332	—
Number of teachers in university arts and science colleges	18,648	27,883	41,759	66,882	—	—

1. Includes 10 institutions of national importance and 12 deemed to be universities.

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directive of providing universal, free and compulsory education to all children up to the age of 14.

The targets of enrolment as well as achievements during the Fifth and Sixth Plans are shown in table 5.2.

TABLE 5.2
ENROLMENT TARGETS AND ACHIEVEMENTS IN FIFTH AND SIXTH PLANS

(in lakhs)

Age Groups		Fifth Plan Target	1977-78 (Position)	1980-81 (Position)	1984-85 (Target)
6-11 classes I—V					
	Boys	463·00	431·97	445·8	484
	Girls	308·00	269·53	281·1	342
	Total	771·00	701·50	726·9	826
		(95·7)	(82·8)	(83·1)	(95)
11—14 classes VI—VIII					
	Boys	140·00	120·31	132·8	166
	Girls	71·00	57·36	65·7	92
	Total	211.00	177·67	198.5	258
		(46.1)	(37.9)	(40.0)	(50)

(Figures in brackets indicate enrolment as percentage of the population of the relevant age-group.)

Education in classes I—V is free in government schools and schools run by local bodies in all parts of the country. It is also free in classes VI—VIII in all states except for boys in Uttar Pradesh.

Compulsory Education Acts are available in 16 states and 3 union territories. They are: Andhra Pradesh, Assam, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Andaman and Nicobar Islands, Chandigarh and Delhi.

An important component of the strategy for universalisation is to cover as much as possible of the total non-enrolled and dropout children by non-formal part-time education. Special central assistance to the tune of Rs 25 crore is to be given to the educationally backward states, which have three-fourths of the non-enrolled children.

SECONDARY EDUCATION

Education is free up to lower secondary (up to class X) stage in 11 states and 7 union territories, namely, Andhra Pradesh, Assam, Bihar, Gujarat, Jammu and Kashmir, Karnataka, Kerala, Nagaland, Tamil Nadu, Tripura, West Bengal, Arunachal Pradesh, Andaman and Nicobar Islands, Dadra and Nagar Haveli, Goa, Daman and Diu, Lakshadweep, Mizoram and Pondicherry. It is free for girls in Madhya Pradesh, Manipur, Orissa, Rajasthan, Sikkim and Uttar Pradesh. In Chandigarh, lower secondary education is free in rural areas. Children belonging to scheduled castes and scheduled tribes get free education in all states/union territories up to class X.

Education at the higher secondary stage (class XI-XII) is free in Gujarat, Jammu and Kashmir, Nagaland, Tamil Nadu, Tripura, West Bengal and in the union territories of Arunachal Pradesh, Andaman and Nicobar Islands, Dadra and Nagar Haveli, Lakshadweep and Pondicherry. Besides, education at this stage is also free for girls in Andhra Pradesh, Madhya Pradesh, Manipur and Sikkim.

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10+2+3 Pattern for School and College Classes.

The adoption of this pattern was first recommended by the Calcutta University Commission (1917-19). The proposal was also endorsed by the Central Advisory Board of Education. The proposal has several obvious advantages; apart from a uniform structure, it provides for transforming the content of education to suit national needs. It transfers the intermediate stage from the university to the school where it really belongs. It makes vocationalisation of the higher secondary stage easier and more effective. It raises the admission age to the university to a desirable level. Above all, it helps in raising standards both at the school and the university stage.

The new system of school education has already been adopted by 24 states and union territories and also by the schools affiliated to the Central Board of Secondary Education.

UNIVERSITY AND HIGHER EDUCATION

Higher education is imparted through 120 universities and a number of arts, science, commerce and professional colleges affiliated to them. Besides, there were 13 institutes in several specialised fields which are deemed to be universities under the University Grants Commission Act, 1956 as on 1 January 1983. Nine institutions had been declared by Parliament to be institutes of national importance.

University Grants Commission

The University Grants Commission, set up initially in 1953, promotes and coordinates university education and determines and maintains standards of teaching, examination and research in the universities. It has the authority to enquire into the financial needs of the universities and to make appropriate grants to different universities. It advises on the establishment of new universities and other matters pertaining to higher education as may be referred to it.

TECHNICAL EDUCATION

Trained manpower at middle-level is needed for a wide range of professional duties, for application of knowledge in field operation, in production and construction, testing and development, etc. For this purpose, diploma courses are offered in about 400 polytechnics, with an annual enrolment capacity of about 65,000 students. They offer a variety of specialisations in engineering and technology as well as in a few non-technological fields. The courses are normally of 3 years duration where full-time institutional instruction is offered and 3½ to 4 years where instruction is on a "sandwich" pattern or on part-time basis. In addition to these polytechnics, there are 40 more polytechnics, which are meant exclusively for girls. They are admitting about 4,000 girls per year.

For the professional engineers and technologists, 214 engineering colleges offer courses leading to Bachelor's degree in engineering and technology. The total admission capacity annually for these courses is about 39,000.

The number of institutions offering post-graduate courses is 96 with annual intake capacity of about 6,000. Facilities also exist at these centres, for part-time courses at the post-graduate level for those who are already in service. Normally the duration of such courses is 5 semesters whereas the duration of a full time Post Graduate Course in engineering and technology is three semesters.

Institutions numbering about 30, mostly in the university sector, are offering management courses both at the first degree and advanced levels. The courses offered at various institutions cover training at the Master's degree level for the management and business administration

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with an annual admission capacity of about 1,500.

The vocational training/craftsmen courses are offered at the industrial training institutes. The diploma courses are offered in the polytechnics which are widely spread over all the states and union territories and are affiliated to the respective State Boards of Technical Education which lay down in general the levels and standards of the courses and guide the system of evaluation of the students appearing at the examination.

Five national institutions at Bombay, Kanpur, Kharagpur, Madras and New Delhi, known as Indian Institutes of Technology, provide facilities for higher level education and research in engineering and technology. These institutions admit about 1,200 students annually to under-graduate courses. Besides, these institutions along with the Indian Institute of Science, Bangalore, admit nearly 2,000 students every year to the post-graduate courses and 1,500 research scholars. In addition, 70 other engineering colleges and university departments offer facilities for post-graduate courses and research with an annual intake of about 3,500 students. There are also 15 regional engineering colleges and a number of other technological institutions and polytechnics providing facilities for education in various branches of engineering and technology. For specialised courses such as mining and metallurgy, industrial engineering, forge and foundry and architecture, a number of centres have been established. To integrate engineering education with practical training, a number of engineering colleges and polytechnics are now offering 'sandwich' courses in collaboration with industry. The duration of such courses for degree in engineering is 5½ years and for diploma 3½ years. To train teachers needed for polytechnics, there are four technical teachers training institutions located at Calcutta, Bhopal, Chandigarh and Madras.

India is now in a position to meet the technical manpower requirements during the next decade with the level of facilities already created.

ADULT EDUCATION

The process of all-round national development in India has changed the concept of adult education significantly. It is no longer confined to traditional literacy in 3 Rs alone. The changing socio-economic scene in the country demands overall development of the human resources. While determined efforts are being made to universalise elementary education up to the age of 14, educational facilities are being extended to adult population to remedy their educational deprivation and to develop their potentiality. Thus, the Government has resolved to remove illiteracy to enable the masses to play an active role in social and cultural change.

Non-formal education for adults, particularly in the productive age group 15-35 has been given priority during the Sixth Plan in view of its potential for immediate impact in raising the level of productivity in the economy. Weaker sections like women, scheduled castes, scheduled tribes, agriculture labourers, slum dwellers, drought-prone area residents, etc., are being given special attention. Besides providing basic literacy skills, the programme aims at upgrading the functional skills and creating social awareness among the illiterate masses.

Students and voluntary agencies, which have shown great capacity to innovate effectively, are being involved in this programme.

WOMEN'S EDUCATION

In recognition of the importance of education of girls and women in accelerating socio-economic development, the Government has formu-

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lated a variety of measures from time to time in this direction. As a result of these measures there had been gradual but progressive increase in the enrolment of girls over the plan periods and the gap in the education of boys and girls appeared to have been narrowing down during the last two decades. During the ten-year period ending 1980-81, there has been an annual growth of 2.8 per cent in enrolment in classes I to V and 6.3 per cent in classes VI to VIII for girls. In the context of the goal of achieving universalisation of elementary education by 1989-90, an additional enrolment of girls to the extent of 70 lakh at primary level and 26.50 lakh at middle level is proposed to be achieved by 1984-85, whereas the corresponding figures of boys enrolment are 47 lakh and 36.50 lakh respectively. In the Seventh Plan the emphasis will be on increased enrolment of girls at middle level also.

EDUCATIONAL TECHNOLOGY

The Ministry of Education started an educational technology programme in the Central sector of the Fourth Plan in 1972. The programme aims at deploying the resources of educational technology for bringing about a qualitative improvement in education, for widening access to education and reducing existing disparities between different regions of the country as well as different sections of the population. The scheme was formulated in the context of expansion of television facilities and the possibility of a satellite being made available for educational purposes. It was an attempt on the part of the Ministry of Education to create an infrastructure at the Centre and the states which would make it possible for education to derive the advantage of the new medium of television. The scheme was intended to stimulate the use of television as well as other instructional media, notably radio and film, to improve the quality of education.

The scheme was centrally sponsored and envisaged the setting up of an educational technology unit in the Ministry, a Centre for Educational Technology (CET) in the National Council of Educational Research and Training for research, training and prototype production and Educational Technology Cells (ET Cells) in the state departments of education for promoting the use of educational technology for the expansion and improvement of education in the state. The CET was set up in 1973 and received UNDP assistance in the form of equipment, experts and fellowships up to March 1980. The state governments receive cent per cent Central assistance for the setting up, maintenance and programmes of the ET Cells for a period of five years after which they become the responsibility of the state governments. So far ET Cells have been set up in 21 states, the only uncovered state being Tripura. The union territories were not covered under the programme.

In order to carry further the achievements and to consolidate the impact of the programme, it has been decided to strengthen ET Cells in all the states and to set up ET Cells in the union territories. A revised educational technology scheme has been formulated under which production facilities are proposed to be given to ET Cells along with the necessary staff.

In February 1980 the Ministry of Information and Broadcasting set up a Working Group to draw up a detailed software plan for INSAT TV utilisation. During the deliberations of this Working Group, it was emphasised that in order to make the programmes relevant, meaningful and effective it was necessary to develop production capabilities at a decentralised level. It was, therefore,

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decided by the Ministry of Education that the responsibility for the production of educational television programmes would be gradually taken over by the educational authorities from Doordarshan.

Keeping in view this major decision, the Ministry of Education set up a Study Group in May 1980 to plan the educational component of INSAT television utilisation. The Group recommended that programme production centres should be set up in a phased manner in the INSAT states namely Andhra Pradesh, Orissa, Gujarat, Maharashtra, Bihar and Uttar Pradesh.

Four proposals have been approved for implementation : (i) establishment of a Central Institute of Educational Technology (CIET) for promoting and coordinating production of ETV programmes in the INSAT states; (ii) establishment of a State Institute of Educational Technology (SIET) in each of the six INSAT states for promoting production of ETV programmes on a localised basis; (iii) continued implementation of an expanded educational technology programme in the remaining states for initiating the creation of production capabilities so that they gain the necessary experience and develop the necessary potential for ready participation in the INSAT programme in due course; and (iv) introduction of the expanded educational technology programme in Tripura and nine union territories.

In December 1980 the Ministry of Education organised a National Workshop on Educational Broadcasting in collaboration with AIR, Doordarshan, NCERT and other organisations concerned. The main achievement of this workshop was the preparation of draft guidelines for educational broadcasting. These guidelines have been circulated to the states/union territories for comments.

The Ministry of Education has also set up a Study Group on Radio Utilisation for Education to go into various aspects of the matter. A detailed project for educational radio broadcasts will be formulated on the basis of the proposed report.

For immediate improvement in the utilisation of radio broadcasts for education, it is proposed to involve the four regional colleges of education of NCERT at Ajmer, Bhopal, Bhubaneswar and Mysore to coordinate with the state education departments and All India Radio. The NCERT will prepare guidelines for the regional colleges for utilisation of radio broadcasts for education. The NCERT will also prepare radio syllabus. A concerted effort will be made to involve the state education departments in the planning and proper utilisation of the radio broadcasts.

National Council of Educational Research and Training

The National Council of Educational Research and Training (NCERT), established in 1961, with headquarters in New Delhi, acts as the principal agency for academic advice to the Ministry of Education, in matters pertaining to the formulation and implementation of policies and programmes for the qualitative improvement of school education. It works in close collaboration with the education departments of the states, universities and other institutions having an interest in school education. It also maintains close contacts with international organisations. Besides the National Institute of Education, Delhi, the Council has four regional colleges of education at Ajmer, Bhopal, Bhubaneswar and Mysore and a net work of eighteen field offices located in the various states/union territories for liaison with state education departments.

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The Council is mainly engaged in research, development, training and extension and has provided support to the implementation of 10+2+3 pattern of education. Besides developing curricula for the various stages of school education, it also produces textbooks in almost all the subjects for the entire school stage (classes I-XII). The states are free to adopt or adapt NCERT textbooks for their schools and supplementary reading material for enriching the knowledge of children. Its Centre for Educational Technology and the Department of Teaching Aids produce video-tapes, tape-slides, films and other audio-visual material for use in schools. The Council produces low-cost science kits for primary and middle schools. The Council is also implementing UNESCO and UNICEF assisted projects in the areas of elementary education, community education, nutrition education and population education.

NCERT conducts and sponsors research and extends financial support for research sponsored by it. It undertakes training programmes at national and international levels and offers consultative services on various aspects of school education. The four regional colleges of education undertake programmes related to innovative pre-service and in-service training of teachers.

The Council brings out four journals *viz., Indian Education Review* (Quarterly); *Journal of Indian Education* (Bi-monthly); *School Science* (Quarterly) and the *Primary Education* (Quarterly). The *Primary Teacher* is published both in Hindi and English.

Every year the Council awards 550 scholarships to students (including 50 scholarships to scheduled castes and scheduled tribes students) on the basis of a National Talent Search Examination. Final year students of secondary and higher secondary stages are eligible to appear. The successful candidates are awarded scholarships to pursue studies up to Ph. D level in science, mathematics and social sciences or professional courses in areas like engineering and medicine.

Special Research Organisations

The Indian Institute of Advanced Study, Shimla, set up in 1965, is a centre for advanced research in the humanities, social sciences and natural sciences. It is a community of scholars engaged in exploring new frontiers of knowledge aimed at making major conceptual developments and at offering inter-disciplinary perspectives on questions of contemporary relevance. A committee appointed by the Government recently reviewed the functioning of the Institute and recommended several measures which are under examination.

The Indian Council of Historical Research, New Delhi, set up in 1972, enunciates and implements a national policy of historical research and encourages scientific writing of history. It operates research projects, offers fellowships and undertakes publication and translation work.

The Indian Council of Social Science Research, New Delhi is an autonomous organisation set up to review the progress of social science research from time to time to give advice to its users in government or outside, to sponsor research programmes and give grants to institutions and individuals for research in the field of social sciences.

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The Indian Council of Philosophical Research, Lucknow has been set up by the Centre to promote studies and research in philosophical themes.

SCHOLARSHIPS

The Ministry of Education administers a number of scholarship programmes including those offered by other countries with a view to equalising educational opportunities as also providing facilities for higher and specialised education and training to Indian students. The Ministry also provides scholarships to nationals of other countries on a bilateral basis or otherwise.

National Scholarships

In order that no brilliant student is prevented from pursuing an academic career on grounds of poverty, the Central Government launched National Scholarships Scheme in 1961-62. From 1961-62 to 1982-83, as many as 2.59 lakh students have been benefited from the scheme. The Government has expended an amount of Rs 28.48 crore up to 1982-83. For 1982-83 and 1983-84, the number of scholarships is 25,000 and 26,000 respectively.

National Loan Scholarships Scheme

The National Loan Scholarships Scheme, in operation since 1963-64, aims at providing financial assistance to needy and meritorious students to enable them to complete their education. From 1963-64 to 1982-83 as many as 3.86 lakh students were benefited from the scheme. The Government have expended an amount of Rs 70.63 crore up to 1982-83. The number of scholarship is 20,000 per year.

Scholarships in Approved Residential Secondary Schools

The Scheme was started in 1953-54. Initially the number of scholarships offered every year was about 60 to 70 but from 1962-63 the number of scholarships was raised to 200 per annum. From 1973-74 onwards 500 scholarships are being awarded annually to the children in the age group of 11-12. Children whose parents' income is below Rs 500 per month are eligible for the award. Scholarships once awarded are continued till the scholars complete their school leaving courses including plus two stage of education.

The total number of scholarships under the scheme is approximately 2,750.

Students from Non-Hindi States

The scheme of scholarships to students from non-Hindi speaking states for post-matric studies in Hindi is being operated since 1955-56. Initially the number of scholarships were 10. Now since 1979-80 it has been raised to 2,500.

Cultural Scholarships

General Cultural Scholarship Scheme has been in operation since 1949-50 to provide educational facilities to the nationals of selected African, Asian and other developing countries, where these facilities, specially in medicine, engineering, agricultural courses are lacking. One hundred and eighty scholarships are allocated to these countries each year. The selected scholars are granted stipends and other allowances. About 5,000 foreign students have been benefited under this scheme.

Scholarships for Talented Children from Rural Areas

The Scheme is in operation since 1971-72. The aim is to develop the potential talent from rural areas and educate them in good neighbourhood/district schools. Under the scheme, scholarships begin at the middle stage and ceases at the end of the secondary stage including

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plus two stage of education. During the first year of its operation *viz.* 1971-72, 10,000 scholarships were distributed. The number increased to 26,000 in 1981-82. In 1982-83, 28,000 scholarships have been allocated. During 1983-84 and 1984-85, 33,000 scholarships will be awarded each year.

This is a Plan Scheme, implemented through the state governments/union territory administrations.

Scholarships for Study Abroad

The Scheme, in operation since 1971-72, provides financial assistance to meritorious students who do not have the means to go abroad for higher studies. Under the scheme, 50 scholarships are awarded every year for post-graduate studies in naval architecture and doctoral and post-doctoral studies in humanities, social sciences, science and technology. The value of scholarships is $ 5,000 per annum for post-graduate and Ph.D courses and $ 6,000 per annum for post-doctoral courses in all countries.

External Scholarships

About 320 scholarships/fellowships are awarded to foreign students annually under the Cultural Exchange Programmes and other schemes like the Reciprocal Scholarship Schemes, Commonwealth Scholarships/Fellowship Plan, Indo-Japan Mixed Commission, Aneurin Bevan Memorial Fellowship Scheme, Amilcar Cabral Scheme and Commonwealth Education Co-operation Plan—Training of Craft Instructors.

Under these schemes, scholarships are awarded normally for a period of two years depending on the duration of the course. The scholarships are mainly for post-graduate studies/research.

PROMOTION OF LANGUAGES

Hindi

The Union Ministry of Education runs several programmes for the enrichment and spread of Hindi. Among these are: (a) evolution and finalisation of Hindi terminology; (b) preparation of dictionaries; (c) preparation of linguaphone records, language lessons and tapes; and (d) publication of popular books in collaboration with private publishers.

Through the Kendriya Hindi Sansthan, Agra, the Government promotes the development of improved methodology for teaching Hindi to non-Hindi speaking students, preparation of suitable teaching materials, and development of improved teaching methods. Through the Central Hindi Directorate, the Government runs programmes relating to the publication of Hindi books and their free distribution in non-Hindi speaking states.

Modern Indian Languages

Under the scheme for the development of modern Indian languages, the Central Government gives financial assistance to voluntary organisations for bringing out publications like encyclopaedias, dictionaries, books of knowledge and of scientific interest. Grants are given for holding literary conferences, seminars and exhibitions for the development of Indian languages. Assistance is also given by way of purchasing copies of printed publications. State governments are given special help for the production of university level books in regional languages. A bureau for promotion of Urdu, called the Taraqui-e-Urdu Board has been set up for the production of educative literature in Urdu. A scheme for the publication of such books in Sindhi is also in operation.

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Central Institute of Indian Languages

The Government also provides facilities for the study of languages other than the mother tongue. For this, the Central Institute of Indian Languages, Mysore, develops improved teaching methodology, prepares teaching materials and trains second language teachers at the regional languages centres of the Institute. The Institute also conducts research necessary for this purpose. The study of tribal languages is one of its important functions.

Central Institute of English and Foreign Languages

The Central Institute of English and Foreign Languages, Hyderabad, trains teachers for teaching of English and foreign languages. It also undertakes the development of methodology of teaching and promotion of teaching materials for use of Indian teachers of these languages. From July 1973, the Institute has became an institution deemed to be a university.

Promotion of Sanskrit and other Classical Languages

There are many schemes for propagation of studies of Sanskrit and other classical languages like Arabic and Persian.

Under the scheme of financial assistance to voluntary Sanskrit organisations, registered organisations engaged in development and propagation of Sanskrit are given grant-in-aid to the tune of 75 per cent of the approved expenditure on some items. During 1982-83 more than 500 voluntary institutions in the country which conduct courses on traditional Sanskrit education have been benefited by this scheme.

The Rashtriya Sanskrit Sansthan, an autonomous organisation under the Ministry of Education with its headquarters at Delhi exercises academic and administrative control over six Kendriya Sanskrit Vidyapeethas, situated at Delhi, Jammu, Allahabad, Tirupati, Guruvayur and Puri, where post-graduate Sanskrit education on traditional *shastras* and research in various fields are conducted. Besides, 15 institutions in the country are affiliated to it for purposes of examination. The Vidyapeetha at Allahabad has launched a massive programme for collecting manuscripts from private sources and 50,000 manuscripts have so far been collected.

Such of institutions among the voluntary organisations which have potentiality for greater development are identified and are brought under the scheme of Adarsh Sanskrit Maha Vidyalayas and are assisted to the tune of 95 per cent towards recurring items of expenditure.

The Central Government is assisting contemporary authors of Sanskrit works in publishing their books to the tune of 60 per cent of the total expenditure. Research institutions and established departments of universities are also assisted to prepare and publish critical editions of rare manuscripts. About 28 publications have come out with Government assistance during 1982-83. In order to encourage individual authors and popularise Sanskrit publications the Government also makes bulk purchase of such publications for free distribution to Sanskrit institutions. Well established research institutions are assisted to prepare and publish descriptive catalogues and the entire expenditure is borne by Central Government.

A programme has been launched to bring out reproduction of important out-of-print Sanskrit books at reasonable price through the commercial publishers. In the first phase, such of these publication of the erstwhile Nirnaya Saugar Press, Bombay, which have gone out of print have been taken up and about 30 publications have already come out. A similar programme is being launched for the re-publica-

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tion of 18 *Puranas* which were originally brought out by Venkateshwara Steam Press, Bombay. Four of them have already come out.

Eminent Sanskrit scholars in indigent circumstances are being helped to the extent of Rs 3,000 each per year less their annual income.

Under the scheme of award of certificate of honour to Sanskrit, Arabic and Persian scholars, eminent scholars are honoured, every year.

An annual Vedic convention is held under the auspices of Ministry of Education where about 100 scholars in different *sakhas* are invited with a view to identify the rare *Veda sakhas* and their repositories and also to devise ways and means of preserving the original traditions.

PHYSICAL EDUCATION

A significant development in the field of physical education and sports and games during 1982 was the creation of an independent Department of Sports at the Central level. Whereas the subjects of sports and games and youth welfare programmes were allotted to the new Department of Sports, physical education continues to be looked after/ dealt with in the Ministry of Education and Culture.

The programmes for promotion of physical education is implemented within the broad frame work of the guidelines laid down in the national policy on education adopted by Parliament in 1968. Further, taking cognizance of potentialities of *yoga* as a traditional physical fitness activity, teacher training and research programmes in *yoga* are also encouraged.

Lakshmibai National College of Physical Education

The primary object of the Lakshmibai National College of Physical Education, Gwalior, which is one of the two national institutes of physical education and sports established by the Government of India, is to provide facilities for training of high calibre leadership in physical education for educational institutions and other organisations. The college provides teacher training facilities at the graduate and post-graduate levels. Since its inception in 1957 the College had produced over 2,000 physical education teachers at the graduate and post-graduate level including over 350 women.

The College also provides extension services and refresher courses for the in-service personnel and implement on agency basis the Central programmes like the national physical fitness programme, national prize competition for published literature on physical education and sports.

Society for the National Institute of Physical Education and Sports

The Society for the National Institutes of Physical Education and Sports (SNIPES) was set up in 1965 by the Government as an autonomous body to look after the management and administration of the two national institutes of physical education and sports namely, the Lakshmibai National College of Physical Education, Gwalior and the Netaji Subhas National Institute of Sports, Patiala and also to initiate steps for raising the standards of games and sports through national coaching scheme and regional coaching centres.

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6 CULTURAL ACTIVITIES

Preservation of the cultural heritage of the country, inculcation of art consciousness among the people and promotion of high standards of the performing and creative arts are some of the objectives of the state policy. In keeping with this, the Central and state governments strive for the promotion of art and culture through national and regional academies of art, dance, drama, music and letters. These institutions and the Department of Culture at the Centre are helped in their objectives by the media of mass communication and voluntary agencies. Apart from this, some eminent persons associated with the fine arts are, from time to time, nominated by the President of India to Rajya Sabha in recognition of their standing in these fields.

VISUAL ARTS

Painting

Important traditions of Indian painting include the murals of Ajanta, Ellora and other frescoes, the Buddhist palm leaf manuscripts, the Jain texts, the Deccan, the Mughal, the Rajput and the Kangra schools. The Bengal renaissance and the modern trends bring it to the present. While the modern trends in Europe and elsewhere have influenced modern Indian painting, Indian folk art and themes have also been successfully revived and accepted.

Architecture and Sculpture

Till the advent of modern trends, architecture and sculpture in India were inspired mainly through the religious motif. The best examples are the temples, mosques, fortresses, palaces and other monuments which dot the Indian landscape. Massive buildings that have come up after Independence and the city of Chandigarh symbolise the beginning of the modern period of Indian architecture. Contemporary Indian sculptors have contributed substantially to the creation of a new awareness of mass, volume and space.

Handicrafts

From coarse carpets to the finest muslins, exquisite cotton and silk saris, embroidered shawls, impressive creations in metals, unglazed and glazed pottery, fabulous jewellery—heavy tribal or costume or filigree-

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rugged or delicate woodwork, dolls and puppets are but a few creations of rich and varied repertoire of Indian craftsmanship. The main inspiration is tradition handed down from generations. The heritage of tribal and village activity is sustained by providing economic support to the artisans and by export promotion. Every year, the best among the craftsmen are honoured by the nation as master craftsmen.

Lalit Kala Akademi

To promote the understanding of India art, both within and outside the country, the Government established the Lalit Kala Akademi (National Academy of Fine Arts) in 1954. The Akademi strives to promote this objective through exhibitions, publications, workshops and camps. Every year it holds a national exhibition and every three years, the Triennale-India, an international exhibition. The Fifth Triennale-India, held from 16 March to 7 April 1982 drew 46 countries from abroad as participants.

The Akademi has brought out a series of monographs and portfolios on ancient Indian art and published the results of new research in Indian arts in its journal, *Lalit Kala*. It has also undertaken a programme to copy frescoes and murals in caves, temples, forts and palaces.

The Akademi's publication programme includes a bi-annual art journal, *Lalit Kala Contemporary,* exclusively devoted to contemporary Indian art, monographs on contemporary Indian artists and large multi-colour reproductions of paintings, sculptures and graphics.

The Akademi organises artists' camps, seminars and lectures and gives grants to recognised art organisations in the country. It honours eminent artists by electing them Fellows. So far 27 persons have been conferred Fellowships. Ten awards are given to artists on the occasion of the national exhibition.

The Akademi has a permanent artists' studio complex with facilities for training and practice in painting, ceramics, graphics and sculpture at Garhi, New Delhi. It has a regional centre at Madras and another at Lucknow which is in the process of construction. In memory of Dr. Ananda Coomaraswamy (1877-1947), the Akademi organises a lecture annually.

PERFORMING ARTS

Music

There are two main schools of classical music namely, Hindustani and Karnatak. Both schools continue to survive mainly through an oral tradition being passed on by the teacher to the disciple and this has led to the existence of family traditions called the *gharanas* and the *sampradayas*.

In recent years there has been a great revival of interest in folk and tribal music, which has been brought to the stage in cities. Growing in popularity is another category of music, which has come to be known as light music.

The patronage to music is both state-supported and popular. The Sangeet Natak Akademi (National Academy of Music, Dance and Drama), All India Radio, Doordarshan, films, voluntary organisations and cultural associations are the main agencies that have brought about a nationwide awareness and appreciation of music.

Dance

Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature. There are two main divisions of Indian dance, namely, classical

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and folk. Under classical are those dance-forms, which are based on ancient dance discipline and have rigid rules for presentation. Among the leading forms of classical Indian dance are *Bharat Natyam, Kathakali, Kathak, Manipuri, Kuchipudi* and *Odissi. Bharat Natyam* has roots in Tamil Nadu. *Kathakali* is the dance-drama of Kerala. *Kathak* is the principal classical dance of North India and was revitalised as a result of the fusion of Mughal influence with Indian culture. Manipur, in the eastern region, has contributed a delicate, lyrical style of dance called *Manipuri. Kuchipudi* is a dance-drama from Andhra Pradesh. Its themes are culled from the epics, the *Ramayana* and the *Mahabharata. Odissi* from Orissa, once practised as a temple dance, is today widely interpreted by artistes. The folk and tribal dances of India are of numerous patterns.

Both the classical and folk dances of India owe their present popularity to institutions like the Sangeet Natak Akademi and training institutes and cultural organisations in different parts of the country. The Akademi gives financial assistance to cultural institutions all over the country for training in different forms of dances. To promote advanced study and training in different forms of dance and music, especially those which are rare, the Akademi awards fellowships to scholars, performers and teachers.

Theatre

Theatre in India is as old as her music and dance. The classical theatre survives only in a few parts of the country. The folk theatre can be seen in its regional variants in practically every linguistic region. There is also the professional theatre, which is mainly urban-oriented. Besides, a rich tradition of puppet theatre is found in various parts of the country. Among the many forms prevalent are the string puppets, rod puppets, glove puppets and leather puppets (shadow theatre).

There are several semi-professional and amateur theatre groups active in many large cities, performing plays in Indian languages and in English.

Sangeet Natak Akademi

The Sangeet Natak Akademi, which was set up in 1953, fosters the development of dance, drama and music. As part of its coordinating and promotional activities, it holds seminars and festivals, presents awards to outstanding performing artistes, gives financial assistance for production and for holding theatre workshops and extends financial help to traditional teachers and scholarships to students.

In view of the many theatrical, musical and dance forms prevalent in the country, the Akademi has set up a special unit for surveying and documenting them. Its disc and tape library has the largest collection of Indian classical, folk and tribal music, and dance and theatre items.

The Akademi is running two national institutions for imparting training in dance. These are the Kathak Kendra, New Delhi and the Jawaharlal Nehru Manipuri Dance Academy, Imphal. The Akademi has also been helping in the resurgence of the puppet theatre in the country.

The Akademi operates a scheme under which subsidy is given for publication of books in various Indian languages and in English on music, dance and drama. It honours outstanding performing artistes by making them fellows and confers annual awards.

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The Akademi has a gallery of musical instruments *Asavari,* where a large number of classical, folk and tribal musical instruments are on display. *Yavanika,* another gallery, houses a representative collection of fascinating masks, puppets and folk theatre costumes.

The Akademi gives considerable importance to documentation of various forms of traditional, folk and tribal performing arts. For this purpose it has a unit which documents the arts in shape of films, photographs and recordings on sound and video tapes. These documented materials are kept in the archives of the Akademi and are available to research scholars.

The Akademi also operates Plan schemes for preservation and promotion of rare forms of performing arts and many forms of traditional puppet theatre. The development of tribal culture, in the initial phase, is limited to survey and documentation of tribal performing arts by organising festivals in areas where there are concentrations of tribal population.

National School of Drama

The National School of Drama, New Delhi, set up in 1959, is fully financed by the Government of India. Since 1975, it is functioning as a registered society. It imparts training in dramatic arts leading to 3-year diploma.

The training in the School covers all aspects of theatre which *inter-alia* includes acting, direction, production of drama and also promoting research survey in classical, traditional and modern drama. The School is in touch with parallel institutions all over the world through the cultural exchange programmes between India and other countries.

The activities of the School are also exhibited through the media of its various extension programmes like Repertory Company, organisation of theatre workshops at various places and theatre training to children in the age group of 8-14.

Broadcasting

All India Radio (AIR) has been contributing to bring about an awareness and appreciation of Indian music—classical, light classical, folk and tribal.

The major programmes through which AIR propagates music are the weekly national programme of music; the weekly programme of classical music by young artistes; the monthly national programme of regional (folk and light) music, the annual music competition to discover young talent and the annual music festival—the Radio Sangeet Sammelan.

The *Vividh Bharati* Service of AIR broadcasts popular film and light music.

Recorded excerpts of major music festivals held in different parts of the country are also broadcast by AIR. Through overseas transmissions, it seeks to satisfy the cultural needs of Indian nationals living abroad. The music archives of AIR are among the most important collections of music records in the country.

LITERATURE

Rediscovery of ancient and medieval Indian literature and development of modern literature in the major Indian languages and in English mark the literary activities in present-day India. A large number of literary periodicals and magazines, literary institutions and All India Radio have given impetus to the growth of modern Indian literature.

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Sahitya Akademi

The Sahitya Akademi (National Academy of Letters) was set up by the Government in March 1954 to work as an autonomous organisation, for the development of Indian letters and to set high literary standards to foster and coordinate literary activities in all the Indian languages and to promote through them cultural unity of the country.

Some of the main functions of the Akademi are: translation of literary works from one Indian language to another and from non-Indian to Indian languages; publication of works on literary history and criticism, books of reference like bibliographies and biographies and works in Devanagari and other Indian scripts and popularisation of the study of literature among the people. The Akademi has regional offices at Bombay, Calcutta and Madras.

An important publication of the Akademi is the *National Bibliography of Indian Literature* (1901-1953) in four volumes, covering books of literary merit in all the major Indian languages and in English published in India or written by Indian authors. These cover English and all the major Indian languages except Dogri, Konkani, Maithili, Manipuri, Nepali and Rajasthani for which a fifth volume is under preparation. The Akademi has been preparing an *Encyclopaedia of Indian Literature.*

It publishes a bi-monthly journal in English, *Indian Literature,* a quarterly in Hindi, *Samakaleena Bharataya Sahitya* and a half-yearly in Sanskrit, *Samskrita Pratibha.*

The Akademi has also sponsored two series of publications, first, *Histories of Literature* of various languages of India and the second, a series of monographs entitled *Makers of Indian Literature* with a brief biography and literary assessment of writers from all over the country, from the earliest times to the present day.

The Akademi is now compiling a detailed *Encyclopaedia of Indian Literature* with the help of over 1,000 writers belonging to the 22 recognised languages.

The Akademi honours eminent men and women of letters by electing them fellows. It awards prizes to works of outstanding merit in English and in other Indian languages.

Encouragement to Young Talent

Young artists of outstanding promise in the age-group of 18-28 are awarded 75 scholarships every year for advance training in music, classical forms of Indian dances, traditional theatre, drama, painting and sculpture. A scholar gets Rs 350 a month for two years.

Talented Children

Talented children in the age group of 10-14 are awarded 100 scholarships every year for developing their talent in various fine arts such as music, dance, painting, sculpture, etc. Twenty-five scholarships are reserved for children belonging to *gharanas/sampradayas.* A sum of Rs 600 a year is paid to those who undergo training at the place of their residence and double that sum to those who have to shift to a new place for training. In both cases, tuition fee up to Rs 1,000 a year to those receiving training in these fields in an institute and Rs 1,500 a year in the case of those receiving training from individual *gurus* is also reimbursed.

Fellowships

To provide basic financial support to outstanding persons for creative work in various fields of the performing, the plastic and the literary arts, in the age group of 25-65, 15 senior Fellowships and 35 junior

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Fellowships of the value of Rs 1,000 and Rs 500, respectively per month, each tenable for two years, are being awarded every year since 1979-80. These fellowships are given for specified schemes and projects either suggested by the artists themselves or selected at the initiative of the Central Government. To promote the study of extinct languages and scripts, expertise in which is fast dwindling, Fellowships of the value of Rs 600 per month tenable for two years are awarded to 10 scholars each year for higher study/research in epigraphy, palaeography, extinct languages, ancient scripts, numismatics, etc.

Persons distinquished in letters, arts and such other walks of life, who are above 58 and have an income of less than Rs 400 a month are considered for grant of financial assistance up to Rs 200 a month.

BOOKS

India is among the first ten countries in book production. In the production of books in English, India ranks third after USA and UK. More than 11,560 titles were published during 1981.

National Book Trust

The National Book Trust (NBT), an autonomous organisation set up by the Ministry of Education in 1957 with the objectives of fostering book-mindedness among the people and producing books of good quality at moderate prices, completed 25 years of its existence on 1 August 1982. As part of the silver jubilee celebrations, a number of publishing and promotional programmes were initiated in 1982.

The fifth World Book Fair, the biggest of its kind in Asia, was organised in February 1982 at New Delhi. Over 470 Indian and 70 overseas participants from 28 countries took part. A unique feature of the fair was the national exhibit displaying 7,000 publications in Indian languages and in English brought out in the country in 1980 and 1981 and the children's corner.

Under the scheme for publication of reading material for the rural areas, the Trust undertook its third project in Andhra Pradesh during November 1982. In collaboration with the Adult Education Department, Andhra Pradesh, the Trust officials visited the Adult Education Centres in the rural areas in Hayatnagar in the Rangareddi district. Seven topics have been finalised for publication in the form of booklets.

The Trust, in collaboration with the Jawaharlal Nehru Memorial Fund, organised a Children's Book Festival in November 1982 at New Delhi. During the festival, a survey on reading habits of children was also carried out.

A Book Week was organised all over the country from 14 to 20 December 1982. The objective of the week was to promote book-mindedness and the sale of books and reading material. To fulfil one of its major objectives, that is, making books available to all concerned, particularly thase residing in the countryside, a series of book exhibitions was held in the smaller towns of Rajasthan during 1982. The NBT also participated in a number of book fairs and festivals held outside the country.

The Trust publishes books in Indian languages and in English, and in well conceived series. It also operates a scheme of subsidised publication of university level books in English by Indian authors with a view to making them available to the students at low prices.

Some of the important series under which the Trust publishes books are: *India—The Land and the People, National Biography,*

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Young India Library, Folklore of India, Popular Science, and *World of Today.* Besides these, the Trust also implements two major publishing programmes for the promotion of national integration, *viz., Aadan Pradan* and *Nehru Bal Pustakalaya.*

A major activity of the Trust is the organisation of seminars, symposia, and training courses for writers, publishers, booksellers, etc.

The NBT Book Centre in Jabalpur, the fifth in the series, (after Amritsar, Calcutta, Hyderabad, and New Delhi) was inaugurated on 26 November 1982.

Publications Division

The Publications Division of the Ministry of Information and Broadcasting brings out books, pamphlets, albums and journals to provide the common reader with information regarding the diverse aspects of our national life and culture and messages of national leaders. [For details, see Chapter on Mass Communication].

Export of Books

India, as a large producer of quality books, has a growing potential for exporting books. During 1981-82, India exported books including periodicals and journals worth about Rs 10 crore. Efforts are being made to encourage the sale abroad of Indian books and to secure printing jobs. For publicising Indian books abroad, India participates in international book fairs, organises special exhibitions of Indian books and conducts market studies.

Import of Books

No import licence is required for the import of educational, scientific and technical books and for records for learning of languages. During 1980-81, books and publications including periodicals, journals and newspapers worth about Rs 15 crore were imported.

National Educational Resources Centre

The Raja Rammohan Roy National Educational Resources Centre was set up in New Delhi in 1972 to serve as an information centre to promote Indian authorship and indigenous book production at university level and for the documentation and statistical analysis of the printed materials imported from abroad with a view to formulating a meaningful import policy for books. It has a large reference collection of university level books produced indigenously as well as the subsidised editions of foreign text books brought out under the Union Ministry of Education collaboration programmes with UK, USA and the USSR. This collection helps authors, publishers and others interested in the field to identify the subject fields and levels where books need to be produced indigenously. In order to publicise the availability of Indian books, the Centre has also been organising exhibitions of books at various university centres. The Centre also arranges evaluation of the indigenous books by subject specialists. It conducts sample surveys on various aspects of the production and use of university level books.

The Centre has been designated as the national agency for introducing the International Standard Books Numbering System in India.

COPYRIGHT

Copyright protection is governed by the Indian Copyright Act, 1957 which came into force in 1958. A Copyright Office is functioning since 1958, mainly to register works in which copyright exists so that the owners of copyright in such works can have a *prima facie* evidence of their ownership under the Act. A Copyright Board with

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powers of adjudication in copyright disputes has been set up in pursuance of Section 11 of the Copyright Act, 1957.

India is a member of three international copyright conventions, namely, the Berne Convention, the Universal Copyright Convention and the Geneva Convention. The Madrid Multilateral Convention on the avoidence of double taxation was adopted in December 1979 and India has completed all formalities for acceding to the convention.

ARCHAEOLOGY

All ancient and historical monuments of national importance are the responsibility of the Central Government, while other ancient and historical monuments are maintained by state governments. The total number of Centrally-protected monuments and sites under the charge as per protection notification entries is 3,483. Actual number, however, exceeds 5,000 since some of the groups of monuments are listed as single units.

The Archaeological Survey of India (ASI), New Delhi, which was founded in 1861, is concerned with the exploration and excavation of ancient sites, the preservation of Centrally-protected monuments and sites, architectural surveys, maintenance of gardens around monuments, chemical preservation of sculptures, monuments and other works of art, epigraphical research, maintenance of 25 archaeological museums, publication of archaeological periodicals and books and implementation of Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Antiquities and Art Treasures Act, 1972.

Under the Antiquities and Art Treasures Act, 1972, no object which is not less than one hundred years old (75 years in case of manuscripts, documents and the like) can be exported without a valid permit from ASI. A permit is also required for the export of works of arts of some of the renowned artists which have been declared as art treasures under this Act. At all international exit points, an experts committee functions to issue non-antiquity certificates. The scheme of registration of sculptures and paintings in all media, besides illustrated, painted or illuminated manuscripts which are not less than one hundred years old, is also in operation. This Act also enjoins that the trade in antiquities is to be carried out by persons duly licensed by the licensing officers of the Survey. Permission is required for filming and photographing with stands at Centrally-protected monuments and museums.

The ASI has a library, which is one of the oldest in the country. It contains rare material not only on India but also on South-East Asia and West Asia. There is a separate library of photographs.

The ASI participated in the conservation, survey and excavation programmes in Afghanistan, Bhutan, Egypt, Indonesia, Kampuchia and Nepal.

The Survey conducts a Post-Graduate Diploma Course in Archaeology in its School of Archaeology where students also from neighbouring countries receive training.

Almost all the state governments also have their own archaeological departments. University departments working in the field of archaeology also carry out archaeological excavations.

MUSEUMS

The museums as repositories of cultural, historical, technical, industrial or other kinds of materials for preservation against decay and for transmission to posterity as records for history and audio-

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visual means of education are an important aspect of education. The development of museums in all their ramifications is considered important as, on the one hand, they promote national integration and, on the other, international understanding.

The Constitution of India makes the states primarily responsible for setting up and maintenance of museums. The Central Government has, however, set up a number of important museums and through its scheme of financial assistance provides funds for the development of private museums, university museums, etc. Great emphasis is laid on the documentation of the existing collection in the Government and private museums, preservation of the collections by using the latest scientific aids and publication of catalogues of collections. It is the endeavour of the Department of Culture to encourage construction of museum buildings to house the antiquities available in the various regions within the financial resources available to it.

In the field of Indian art and archaeology, the Central Government has established the National Museum, New Delhi; Indian Museum, Calcutta; and Salar Jung Museum, Hyderabad. In the contemporary history and art, Victoria Memorial Hall, Calcutta; National Gallery of Modern Art, New Delhi; and the Nehru Memorial Museum and Library, New Delhi are three museums financed by the Government of India.

The National Museum, established in 1948, is one of the premier museums in the country and its main activities are in the fields of acquisition, exhibitions, publications and conservation. The Indian Museum, the first museum of the country having been established in 1814, is the most illustrious art and archaeology museum. The Salar Jung Museum has a wide range of collection of objects of art. It has more than 7,500 manuscripts in Persian, Arabic and Urdu. The Victoria Memorial Hall is mainly a historical art gallery and contains relics and mementos relating to British period of Indian history covering 1700-1900 AD. This is now being converted into a period Museum, in which due place is being given to the freedom struggle of the Indian people. Materials are being collected so as to set up an extensive gallery for projecting tribal and peasant movements of the eighteenth and nineteenth centuries.

The National Gallery of Modern Art, set up in 1954, has a collection of over 3,500 works of art, representing various styles, spanning more than a century. Among the distinguished Indian artists whose works are in the collection of the Gallery are : Raja Ravi Varma (1848–1906), Abanindranath Tagore (1871-1951), Nandalal Bose (1883–1966), Devi Prasad Roy Chowdhury (1899–1975), Binoda Behari Mookerjee (1904—1980), Ramkinkar Vaij (1910—1980), Rabindranath Tagore (1861–1941), Gangenendranath Tagore (1867–1938), Jamini Roy (1887–1972), and Amrita Sher-Gil (1913–1941). The collection includes sculptures, graphics and paintings by some of the international modern artists. The Gallery arranges special exhibitions of national and international art. It brings out publications for sale. The Gallery is equipped with a very good restoration laboratory.

Some of the other important museums are : Indian War Memorial Museum and Archaeological Museum at Red Fort, National Museum of Natural History, Crafts Museum and Rail Transport Museum, all in New Delhi Asutosh Museum in Calcutta; State Museum, Hyderabad; Prince of Wales Museum of Western India, Bombay; Government Museum, Madras, Bharat Kala Bhavan, Varanasi; Municipal

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Museum, Allahabad; State Museum, Lucknow and Calico Textile Museum, Ahmedabad. There are archaeological museums at ancient sites *e.g.* Konarak, Amaravati, Nagarjunakonda, Sanchi, Nalanda, Sarnath, etc. There are also museums of dolls, textile designs and for children in places like Delhi, Ahmedabad and Lucknow. A few scientific and technological museums have also been established in Calcutta, Bangalore and Bombay. There are over 375 museums in the country.

Training in Museology

Regular degree and diploma course in museology are being conducted by the universities of Aligarh, Baroda, Bhopal, Calcutta, Pilani and Banaras.

The Government of India organises annually museum camps at different places in India, a six-week in-service training course as well as a three-month course on conservation of museum materials in the National Museum, New Delhi, and also, awards fellowships for training in India and abroad. In addition, as the facilities for training in conservation of cultural property are limited, efforts have been intensified to impart training to a larger number of conservators through the National Research Laboratory for Conservation of Cultural Property, Lucknow and the National Museum, New Delhi.

ARCHIVES AND RECORDS

The records and manuscripts constitute an important part of the rich Indian cultural heritage. These are the major repository of the contribution that our predecessors made in the diverse fields of religion, philosophy, astronomy, literature, history, medicine and science. They constitute the primary source of reconstruction of India's past. The Central Government has jurisdiction only over libraries established by it and institutions of national importance declared so. However, it takes initiatives to secure the voluntary cooperation of the state governments and to promote a coordinated development of national, state and other libraries.

National Archives

The National Archives of India, New Delhi, is the largest and perhaps the best organised record repository in Asia. It has in its custody several million public records, maps, private papers, microfilms, books, occupying a total length of 25 km of shelf space. Several hundred research scholars are provided facilities for research. Among the significant activities being carried out by the Department is the preparation of *Guide to Records in the National Archives of India,* preparation of national register of private records, creating archival consciousness among the masses through exhibitions, seminars and lectures, apart from an elaborate publication programme. The Department also runs a School of Archival Studies which is the only one of its kind in Asia, offering a wide range of courses in different aspects of archival science. Another scheme *Towards Freedom* aims at publishing records on the national movement and transfer of power during 1937–47 in ten volumes.

Manuscripts Libraries

The Khuda Bakhsh Oriental Public Library, Patna, has one of the richest collections of Arabic and Persian manuscripts and Mughal and Central Asian paintings. Presently, the Library possesses some 14,000 manuscripts and 2,000 paintings and is fast becoming a centre for preserving and dissemination of knowledge of Arabic and Persian learning and Islamic and medieval Indian studies.

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The Tanjore Maharaja Sarfoji's Saraswati Mahal Library which has its roots in the time of the imperial Cholas was taken over by the Madras Government in 1918. It has a rich collection of about 40,000 manuscripts in Sanskrit, Marathi, Tamil, Telugu and other languages, besides a collection of over 23,000 books in the Indian and European languages covering various disciplines. The Raza Library, Rampur, has one of the richest collection of India with holdings of 15,000 manuscripts.

Some of the other important manuscript libraries are : Government Oriental Manuscript Library, Madras; Oriental Research Libraries at Pune in Maharashtra and Vadodra in Gujarat; Sanskrit University Library, Varanasi; Visheshwaranand Vedic Research Institute Library, Hoshiarpur and Maulana Azad Aligarh Muslim University Library, Aligarh. In addition, there are over 500 other collections belonging to state governments and private agencies which have hundreds of thousands of manuscripts.

LIBRARIES

Libraries are the keepers of our history and culture. The development of the library system is an important component of the scheme of non-formal education and continuing education. Constitutionally the subject libraries is included in the State list. The Centre has jurisdiction only over libraries established by the Central Government and institutions of national importance as declared by it. There are more than 60,000 libraries of all descriptions in the country.

The Central Reference Library, Calcutta, is responsible for the implementation of compilation, editing, printing and sale of the Indian National Bibliography. This is a monthly/annual bibliography containing the entries of current Indian publications in major Indian languages and in English. The library is also compiling Index Indiana, a quarterly Index to articles appearing in current Indian periodicals in major Indian languages.

Copyright Libraries

Under the Delivery of Books and Newspapers (Public Libraries) Act, 1954, four libraries are entitled to receive a copy of every new book and magazine published in the country. These are National Library, Calcutta; Central Library, Bombay; Cannemara Public Library, Madras and Delhi Public Library, Delhi.

Other Libraries

There are also specialised libraries providing facilities to researchers. Prominent among them are the Indian Council of World Affairs, New Delhi; Indian Statistical Institute, Calcutta; Gokhale Institute, Pune; Theosophical Society, Madras; National Council of Applied Economic Research, the Indian Institute of Public Administration, and the Central Secretariat Library, all in New Delhi. Apart from these some of the bigger universities also have sizable collections.

INSTITUTIONS OF TIBETAN AND OTHER HISTORICAL STUDIES

Many centuries ago, Indian scholars took arduous journeys across the Himalayas to Tibet and with them they carried Indian philosophy and thought. The evolution of Tibetan thought and culture was a consequence of this interaction.

Nearly two decades ago, many human repositories of this great tradition travelled to India from Tibet. At the initiative of Jawaharlal Nehru, (1889-1964) a number of Buddhist institutions were started in India. Amongst them were the School of Buddhist Philosophy,

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Leh, and the Central Institute of Higher Tibetan Studies, Sarnath, which are fully financed by the Department of Culture. The main objectives of these institutions are preservation of Tibetan culture and tradition and imparting of studies in ancient and traditional subjects through a modern university framework and conducting research in Tibetan studies. Besides, Government gives grants to Sikkim Research Institute of Tibetology, Gangtok, and Library of Tibetan Works and Archives, Dharamsala.

The Institute of Tibetan Studies was established in Varanasi as a constituent wing of Varanaseya Sanskrit Viswa Vidyalaya. It became a fully autonomous organisation in 1977 and was renamed as the Central Institute of Higher Tibetan Studies. The Institute has a planned programme of training, research and publication which would bring to light the Tibetan heritage, particularly a body of knowledge of the Indian heritage which was lost to Sanskrit and Pali but was preserved in Tibet.

The School of Buddhist Philosophy, Leh, was established in 1959 with a view to imparting education in classical and modern Buddhist studies on Monastic patterns to the students belonging to Ladakh alongwith the studies of modern subjects. The school is affiliated to the Sampurnanand Sanskrit Vishvidyalaya, Varanasi and prepares students for *Purva Madhyama, Uttar Madhyama, Shastri,* etc. of the Vishwavidyalaya. The school is rapidly expanding as an Institute of Buddhist Studies and is being renamed as Central Institute of Buddhist Studies, Leh.

PROMOTION OF CULTURE

The Centre for Cultural Resources and Training was set up in 1979 as an autonomous organisation fully financed by the Government. The Centre has taken over the scheme of propagation of culture among college and school students, which was being implemented by Delhi University from 1970 onwards.

The broad objective for which the Centre has been established is to revitalise the educational system by creating an understanding and awareness among the students about the plurality of regional cultures of India and integrating this knowledge with the curriculum subjects. To fulfil its objectives, the Centre organises a number of training programmes for the benefit of inservice teachers drawn from primary/high/higher secondary schools in different parts of the country.

INTERNATIONAL CULTURAL RELATIONS

CULTURAL AGREEMENTS

India has cultural agreements with 62 countries. They are : Afghanistan, Arab Republic of Egypt, Argentina, Australia, Algeria, Baharain, Bangladesh, Belgium, Brazil, Bulgaria, Cuba, Colombia, Cyprus, Czechoslovakia, Democratic People's Republic of Korea, Federal Republic of Germany, France, German Democratic Republic, Ghana, Greece, Guyana, Hungary, Indonesia, Iran, Iraq, Italy, Japan, Jordan, Kenya, Kuwait, Lesotho, Mauritius, Mongolia. Mexico, Malaysia, Morocco, Norway, People's Democratic Republic of Yemen, Philippines, Poland, Portugal, Qatar, Rumania, Republic of Korea, Rwanda, Sri Lanka, Senegal, Sudan, Syria, Somalia, Tunisia, Thailand, Turkey. Tanzania, Uganda, United Arab Emirates, USSR, Vietnam, Yugoslavia, Zambia, Zaire and Zimbabwe. Closer cultural relations with some of these countries have found a practical shape in the form of cultural exchange programmes with 35 countries.

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While the cultural cooperation activities rest mainly with the Department of Culture, international cultural cooperation programmes are also executed through the Indian National Commission for Co-operation with UNESCO.

Auroville

Auroville, an international cultural townships, is located in Pondicherry in South India. It was founded in 1968 under charter which declares that it belongs to the entire humanity and that it aims at unending education and material and spiritual research for the promotion of human unity. UNESCO has welcomed the project and called upon nations to collaborate in its development. Recently, the Central Government has taken over, temporarily, its management so that the project may register desired growth in consonance with its ideals.

Festival of India—UK

In 1978 the British Government proposed the possibility of organising in London two large-scale exhibitions of Indian classical art. The Government agreed to collaboration in this venture. The exhibition was conceived as a most comprehensive and ambitious manifestation of India's past and present undertaken anywhere since Independence. The aim was to give an opportunity to people of Indian origin settled there, to add to the richness and variety of the cultural heritage of India and to know the progress and development which India had made in the fields of science, industry and technology since Independence.

The Festival of India was inaugurated on 22 March 1982 in London and concluded on the 14 November 1982.

Indian Council for Cultural Relations

The Indian Council for Cultural Relations, New Delhi, established in 1950, as a corporate body under the Ministry of External Affairs, strives to promote and strengthen cultural relations and mutual understanding between India and other countries. The Council has regional offices at Bangalore, Bombay, Calcutta, Chandigarh, Madras and Varanasi and cultural centres in Suva, Fiji; Georgetown, Guyana and Paramaribo, Surinam.

The main functions of the Council are reciprocal development of studies in Indian and foreign universities, publications in English and foreign languages on different aspects of Indian culture, exchange of cultural delegations, scholars and artistes and organisation of lectures, seminars and conferences; establishment of Chairs and Centres of Indian studies abroad; looking after the welfare of foreign students and publication of periodicals in English, Arabic, Spanish, French and Hindi.

The Council administers the Jawaharlal Nehru Award for the promotion of Peace and International Understanding, instituted by the Central Government in 1964. Recipients of the Award so far are : U. Thant (1965), Martin Luther King Jr. (posthumous) (1966), Khan Abdul Ghaffar Khan (1967), Yehudi Menuhin (1968), Mother Teresa (1969), Dr. Kenneth D. Kaunda (1970), Josip Broz Tito (1971), Andre Malraux (1972), Julius K. Nyerere (1973), Raul Prebisch (1974), Jonas Salk (1975), Giuseppe Tucci (1976), Tulsi Meherji Shreshtha (1977), Nichidatsu Fujii (1978), Nelson Mandela (1979), Barbara Ward (1980) and Gunnar Myrdal and Alva Myrdal (jointly) (1981).

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7 SCIENTIFIC RESEARCH

Scientific research in India is carried out under three major sectors *viz.*, the Central Government, the state governments and various in-house research and development units of the industrial undertakings, both under the public and private sectors.

There are about 180 research laboratories within the purview of the major scientific agencies carrying out research in different areas. Under the Central Government there are a large number of scientific institutions under various ministries *viz.* telecommunications, railways, etc., to carry out research programmes of practical relevance to the areas of responsibilities of these ministries. The state governments supplement the efforts of the Central Government in those areas which are of prime importance to them *viz.* agriculture, animal husbandry, fisheries, etc. A major work in the field of science and technology is carried out in educational institutions that come under the Central and state governments. These receive funds through the University Grants Commission, which has set up a science research council to promote research in universities. The educational institutions also receive support from various scientific agencies.

Scientific research is also gaining momentum in many industrial establishments. Till 31 March 1983, there were more than 800 inhouse units in the public and private sectors which were recognised by the Department of Science and Technology (DST). A number of incentives are being offered to them by the Central Government to encourage them embark on research and development activities.

The expenditure on research and development and related scientific and technological activities has increased from Rs 4.68 crore in 1950-51 to Rs 743 crore in 1980-81 and was expected to be of the order of Rs 990 crore during 1982-83. The total allocation in the Sixth Plan for scientific and technological activities (both plan and non-plan) is Rs 3,367 crore. This, however, does not include amounts such as investment on research and development by Defence Research and Development Organisation (DRDO), organisations outside the Central Government such as industry, state governments and state undertakings.

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Science Policy

The Government of India's science policy is guided by Scientific Policy Resolution adopted by Parliament on 4 March 1958. One of the major objectives of this resolution is to secure for the people of the country the benefits from the acquisition of scientific knowledge and its application. The resolution also sets out some other aims like encouraging individual initiative for the acquisition and dissemination of knowledge as well as the discovery of new knowledge, fostering programmes to train scientific and technical personnel to fulfil the needs in the fields of science and education, agriculture, industry and defence and ensuring an adequate supply of scientists and recognising their work.

The Central Government had consistently laid emphasis on the development of science and technology as major instruments for achieving national goals; self-reliance, economic and social development. Substantial support has been provided for the creation of sound base in science and technology, in education and in all sectors where applications are to be found. Significant achievements have been recorded as a result of this policy.

As knowledge expands world over, there is need for further development of our own base, efficient absorption and adaptation of technology acquired to meet our needs and to suit our national objectives and at the same time create new knowledge.

The Technology Policy Statement announced in January 1983, takes note of the complexity in the generation, acquisition and application of technology. Aims and objectives, reaffirm our adherence to the path of self-reliance through strengthening of our technology base and its application to areas of priorities; ensuring preservation of our environment and nurturing traditional skills. These objectives can be achieved by proper mix of indigenous technology and acquisition from outside on a planned basis and through further intensifying our mechanisms for generating technology, absorption, and diffusion and providing challenging opportunities for our young scientists and technologists.

Expenditure

An idea of expenditure on scientific research and development at the national level as also the budget of major science and technology (S&T) organisations will be available from tables 7.1 and 7.2. It is worth noting that there has been a substantial rise in the expenditure on research and development in all the sectors.

(Rs in crore)

TABLE 7.1
EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Central sector	355·53	431·81	523·43	573·28	659·26	758·14
State sector	36·50	51·01	58·76	65·96	73·87	82·73
Private sector	58·20	75·87	92·14	103·93	124·72	149·66
Total	450·23	558·69	674·33	743·17	857·85	990·53

NOTE :
Data for 1981-82 and 1982-83 have been estimated by applying the rates of growth as : Central Government 15 per cent, State Governments 12 per cent, Private Sector 20 per cent.

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TABLE 7.2
BUDGET OF MAJOR SCIENTIFIC ORGANISATIONS

(Rs in crore)

Sl. No.	Agency	1980-81	1981-82 (RE)	1982-83 (BE)
1.	Department of Atomic Energy	76·23	90·85	103·11
2.	Department of Space	52·71	75·99	82·27
3.	Department of Science and Technology	35·37	60·89	77·69
4.	Council of Scientific and Industrial Research	72·82	77·80	87·65
5.	Defence Research and Development Organisation	79·70	104·84[1]	122·00[2]
6.	Indian Council of Medical Research	8·42	12·05	14·23
7.	Indian Council of Agricultural Research	65·99	87·21	113·18
8.	Department of Environment	*	6·30	10·16
9.	Department of Ocean Development	*	6·45	17·09
10.	Department of Electronics	4·31	6·31	7·00
	Total.	395·55	528·69	634·38

Note :—1. Actual expenditure.
2. Revised estimates.
* Included in the figures for Department of Science and Technology.

APEX ADVISORY BODY

Government constituted in March 1981, a Cabinet Committee on Science and Technology (CCST) headed by the Prime Minister. This Committee reviews the overall progress of the science and technology programmes and takes decisions on high level policy matters, corrective measures that are needed, major investments, etc. A Science Advisory Committee to the Cabinet (SACC) has also been constituted as an apex advisory body on science and technology. It is headed by the Member (Science) in the Planning Commission and includes in it a wide spectrum of scientists and technologists representing different areas of scientific endeavour. The Committee is an advisory body to the Cabinet and is serviced by DST. The principal tasks of SACC are : tendering advice on the formulation of science and technology policy of Government and the manner of its implementation, identifying and recommending measures to enhance the country's technological self-reliance; considering policy issues relating to the development and application of science and technology referred to it by the Prime Minister or the CCST considering organisational aspects of science and technology organisations/institutions including measures to provide adequate linkages between the scientific community, educational institutions, research and development establishments, industry and Government machinery; and considering the filling up of critical gaps in national competence, promoting technical cooperation among developing countries and issues concerning science in international relations.

NATIONAL BOARDS

A National Biotechnology Board (NBTB) was set up on 18 January 1982 with the main objective of evolving a national coordinated short and long term plan of research and development, utilisation of the known technologies, strengthening of existing infrastructure and setting up centres in the newly developed thrust areas of bio-technology. Safety guidelines for conducting recombinant DNA research has been prepared. A two-year programme of training courses and workshops has been started in the area of manpower development. A unit has

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been set up to produce enzymes needed for genetic engineering research. A standing advisory committee for USA and Canada has been formed for providing continuous feed back on research and development and industrial progress in North America and for information of Indian scientists working there. With contribution from various government research and development agencies, a core fund has been formed for providing support for these activities and inter-institutional programmes and creating infrastructural facilities.

The National Science and Technology Enterpreneurship Development Board was also set up on 18 January 1982, with the main objectives of dealing with the problem of unemployment and inappropriate employment among qualified science and technology personnel as also to ensure institutional single window mechanism at the central level for enterpreneurs desirous of setting up of production ventures; to promote opportunities for gainful self-employment for them and to develop enterpreneurship.

SCIENCE AND TECHNOLOGY

The Department of Science and Technology (DST) which was set up in 1971 has been assigned the responsibility of promoting new areas of science and technology; undertaking or financially sponsoring scientific and technological surveys, research, design and development; supporting national research institutions and scientific bodies; coordinating all activities relating to intenational science and technology collaboration except in specific areas assigned to other agencies; dealing with the promotion of and support to indigenous technology; disseminating scientific and technological information; coordinating multi-institutional inter disciplinary activities in areas of science and technology and providing secretarial support to the Science Advisory Committee to the Cabinet.

Over the years, the Department has made sustained efforts to promote and accelerate the development and utilisation of science and technology in the country; special emphasis has been given to implement the programmes identified in the Sixth Plan. Through the implementation of science and technology promotional programmes, the effort has been to develop a large base of science and technology in the country, to promote research activities in newly emerging and well-defined areas of science and technology, helping in generating technologies relevant to rural and tribal development and ensure involvement of a large number of scientific bodies, organisations, departments and ministries in the scientific endeavour.

PROMOTION SCHEMES

Some of the schemes being operational are : research and development funding schemes such as Science and Engineering Research Council and the General Research Funds. These are being given greater thrust by providing inter-linkages between the schemes and identifying specific thrust areas programmes in various disciplines of science and technology. Indentified priority areas for research have been strengthened under the Intensification of Research in High Priority Areas schemes by providing support to institutions where programmes have been evolved around outstanding individual scientists/groups.

As a part of promotional programmes, emphasis has also been given to encourage the participation of younger scientists in science

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and technology activities in the country and providing them support for participation in international conferences, recognising their research work by giving special awards as well as encouraging meetings of young scientists for discussions on science and technology issues.

An important element of science and technology promotion which relates to strengthening of infrastructure facilities which are required by the large scientific community in the country was also taken into account by creating Regional Sophisticated Instrumentation Centres in three new locations in the country in addition to the existing four centres set up during the previous years.

A three pronged approach has been adopted in the area of engineering science for identifying thrust areas in sectors crucial to the national economy; supporting scale up of research in laboratories for its transfer to industry and adapting or modifying foreign technology to suit the country's requirements and conditions. The scope of the programme ranges from projects covering sophisticated technologies such as cryogenics to simple but relevant processes, systems and machines needed in the rural environment.

National Coordination of Testing and Calibration Facilities

The main objectives of National Coordination of Testing and Calibration Facilities is to provide official recognition to competent testing laboratories to carry out particular tests related to science and technology, to the introduction of recognised calibration systems and raising the standard of testing the quality and reliability of Indian goods.

Natural Resources Data Management Systems

The scheme of Natural Resources Data Management Systems envisages the development of methodologies, formats and computer software for creation of comprehensive data base for micro-level planning. Standard formats for collection of data on natural resources and agro-economic socio-economic and demographic infrastructures have been developed which are under extensive field trials.

National Information System

Under the National Information System for Science and Technology (NISSAT), activities relating to the dissemination of scientific information have been accelerated. In addition to strengthening the activities of the existing information centres on leather, drugs, machine tools and food, one more information centre for crystallography has been brought under its purview.

National Council for Science and Technology Communications

A National Council for Science and Technology Communications (NCSTC) comprising representatives from Central and state governments, mass media voluntary agencies, etc., has been set up to prepare blue prints/action plans for popularisation of science and technology and work towards the growth of scientific temper in India.

State Science Councils

To encourage scientific activities at the state level, the scheme of providing assistance for development of state councils for science and technology has gained further momentum. Sixteen state councils for science and technology and/or state departments on science and technology have already been formed. Other promotional schemes which have made considerable progress during the years are those relating to technology development for scheduled castes and scheduled tribes, science and technology for women and assistance to professional bodies.

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International Co-operation

There has been a sustained effort during the years to promote international scientific and technological cooperation with developing as well as developed countries. Some of the important activities during the year were meeting of all heads of the science and technology agencies of developing countries in New Delhi in May 1982, a fresh programme of cooperation with Vietnam and signing of two new agreements in science and technology with Bangladesh and Indonesia, interaction with People's Republic of China in science and technology, evolving collaboration mechanism in various sectors of science and technology among the countries of South Asia; new initiatives for strengthening and extending science and technology relations with developed countries such as France, USA and USSR.

Cooperation in areas of science and technology was also discussed in the Non-aligned Summit which approved the setting up of centres for science and technology for non-aligned countries.

Technology Utilization

Increasing attention is being paid to promote and support indigenous technology through measures such as registration of research and development units set up within the industry; appropriate fiscal incentives for expenditure incurred on scientific research and for financial contribution to scientific research institutions, weighted tax benefit for sponsoring and carrying out research in research and development units on the programmes approved by the Department; and investment allowance at enhanced rates on amounts spent on commercialising the indigenous technology. So far about 836 research and development units have been recognised.

Public Sector Undertakings

The National Research Development Corporation (NRDC) and Central Electronics Ltd. (CEL), are the two public sector undertakings under the control of DST.

The indigenously developed technologies are mostly licensed through NRDC. The Corporation promotes the utilisation of such technologies through equity participation by providing financial support for development projects assisting in horizontal transfer of technology and support for export of indigenous technology. CEL has made advances in photovoltaic systems regularly produced; these are of high standards and have been installed in off shore platforms, communication work, remote mountain villages for water pumping and public lighting places where distributed electric power is not available. A wide range of products in ceramics have been developed. More or less all technologies/products have been developed in the undertaking indigenously.

National Surveys and other Institutions

The Survey of India (SOI), Dehra Dun and the National Atlas Thematic and Mapping Organisation (NATMO), Calcutta are the two attached offices under the control of DST. SOI and NATMO prepare maps of the country needed for survey support to defence forces and other purposes and also prepare a National Atlas of India. SOI has undertaken several field and topographical surveys including surveys for developmental projects connected with coal fields, irrigation, power communication, flood control, water supply, forestry, etc.

A number of autonomous scientific institutions in the country are fully or partially supported by DST through regular annual grants.

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The scientific aims and work of these institutions pertain to enhancement of the national science and technology capabilities through the accomplishment of time bound research projects of national relevance. These institutions are : (1) The Birbal Sahni Institute of Paleobotany, Lucknow; (2) The Bose Institute, Calcutta; (3) The Indian Association for Cultivation of Science, Calcutta; (4) The Maharashtra Association for the Cultivation of Science, Pune; (5) The National Institute of Immunology, New Delhi; (6) Padmaja Naidu Himalayan Zoological Park, Darjiling; (7) Raman Research Institute, Bangalore; (8) Sri Chitra Tirunal Institute for Medical Science and Technology, Trivandrum and (9) Wadia Institute of Himalayan Geology, Dehra Dun.

ATOMIC ENERGY

The Atomic Energy Commission, set up in 1948, is responsible for formulating the policy for all atomic energy activities in the country. The Department of Atomic Energy (DAE) set up in 1954 as an independent Department under the Prime Minister, is the executive agency for implementing the atomic energy programme. This Department has a number of units under it.

The Bhabha Atomic Research Centre (BARC) at Trombay near Bombay, started in 1957, is the largest single scientific establishment in the country. Most of the research and development on the application of atomic energy is done at BARC. At present two experimental nuclear reactors are in operation at Trombay—a one megawatt (mw) swimming pool type reactor APSARA and a 40 mw reactor CIRCUS. A zero energy experimenal thermal reactor ZERLINA and a fast critical facility PURNIMA were used for carrying out reactor physics experiments. A fifth 100 mw research reactor R-5 is nearing completion at Trombay.

The Variable Energy Cyclotron Centre (VECC) set up at Calcutta by BARC is a national facility for carrying out advanced experimental research in nuclear sciences. The VECC is also used for controlled direct irradiation of biological and agricultural products. The High Altitude Research Laboratory of BARC at Gulmarg also provides facilities for high altitude research to all scientific institutions and universities in India. BARC has a Nuclear Research Laboratory at Srinagar as well.

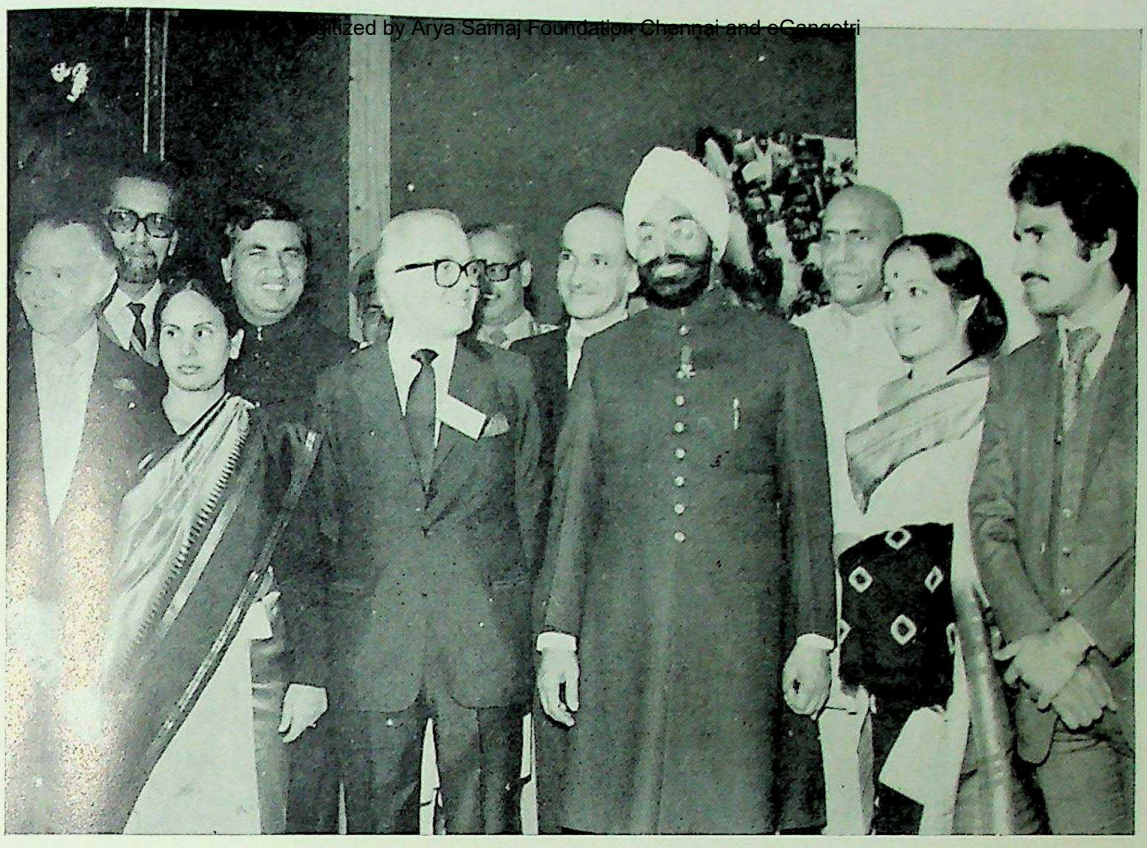
The seismic station of BARC at Gauribidanur near Bangalore makes it possible to detect and determine the location of occurrence of underground nuclear explosions.

BARC is the only producer of radio isotopes and equipment in the country. About 400 radioactive products and labelled compounds are produced at BARC and every year about 45,000 consignments of radio isotopes and equipment are supplied to users in the country and abroad. Radio isotopes are used in a number of areas such as diagnosis and treatment of diseases, industrial radiography, developing high yielding disease resistant mutants of rice, wheat, groundnut, etc. A commercial radiation sterilization plant at Trombay, called ISOMED, provides sterilization services to the medical products industry in the country. The Radiation Medicine Centre at Bombay uses radio isotopes for diagnostic and therapeutic applications.

Besides nuclear sciences, research and development work in ā

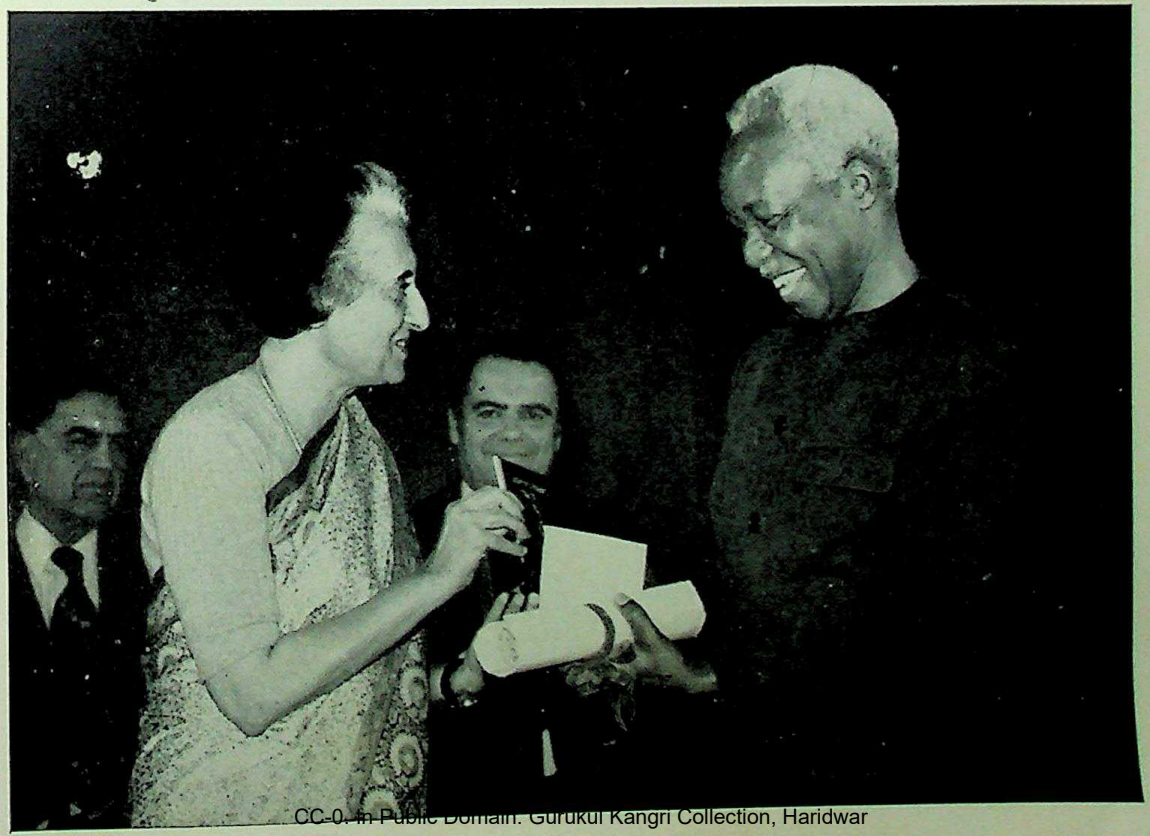
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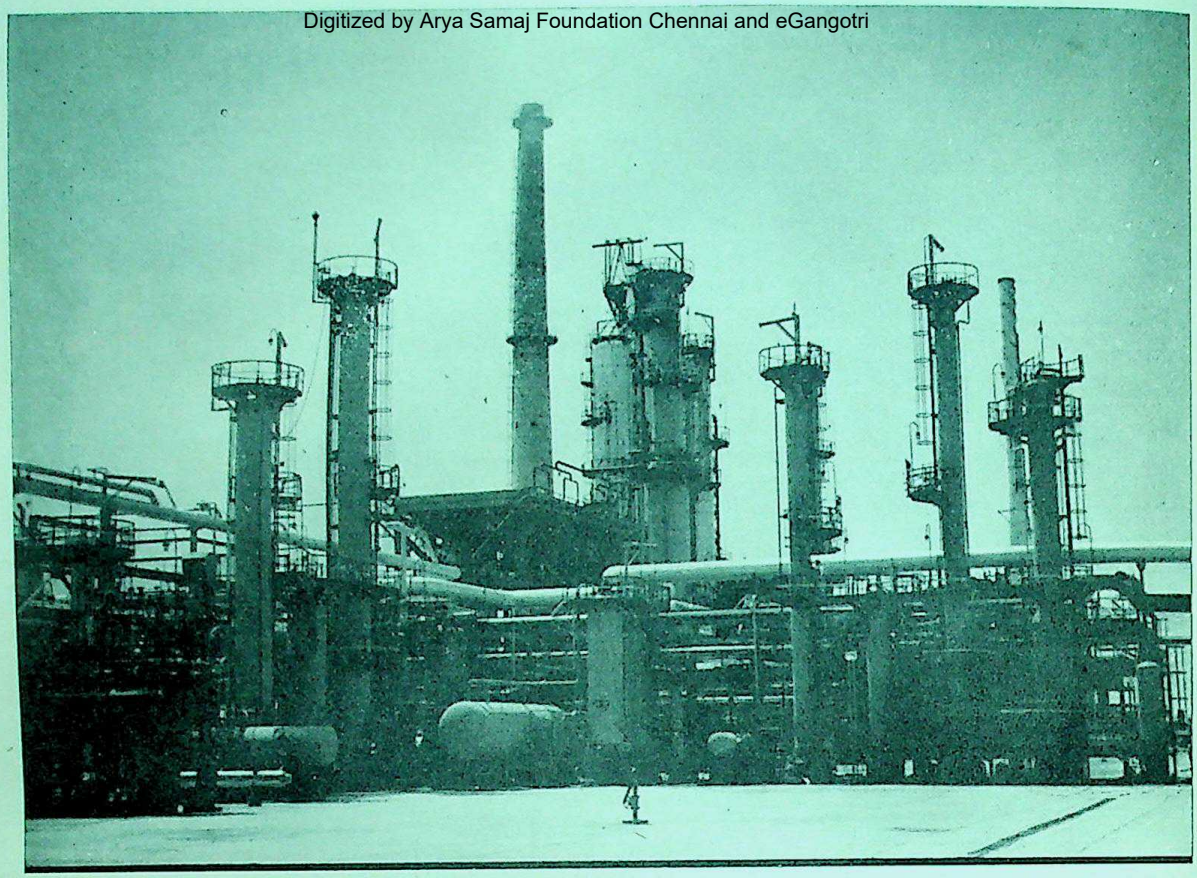
President Zail Singh with some of the artistes of the film **Gandhi** *at its premier on 30 November 1982 in New Delhi*

Tanzanian President Julius Nyerere being presented the 1981 Third World Foundation Award by the Prime Minister in New Delhi on 22 February 1982



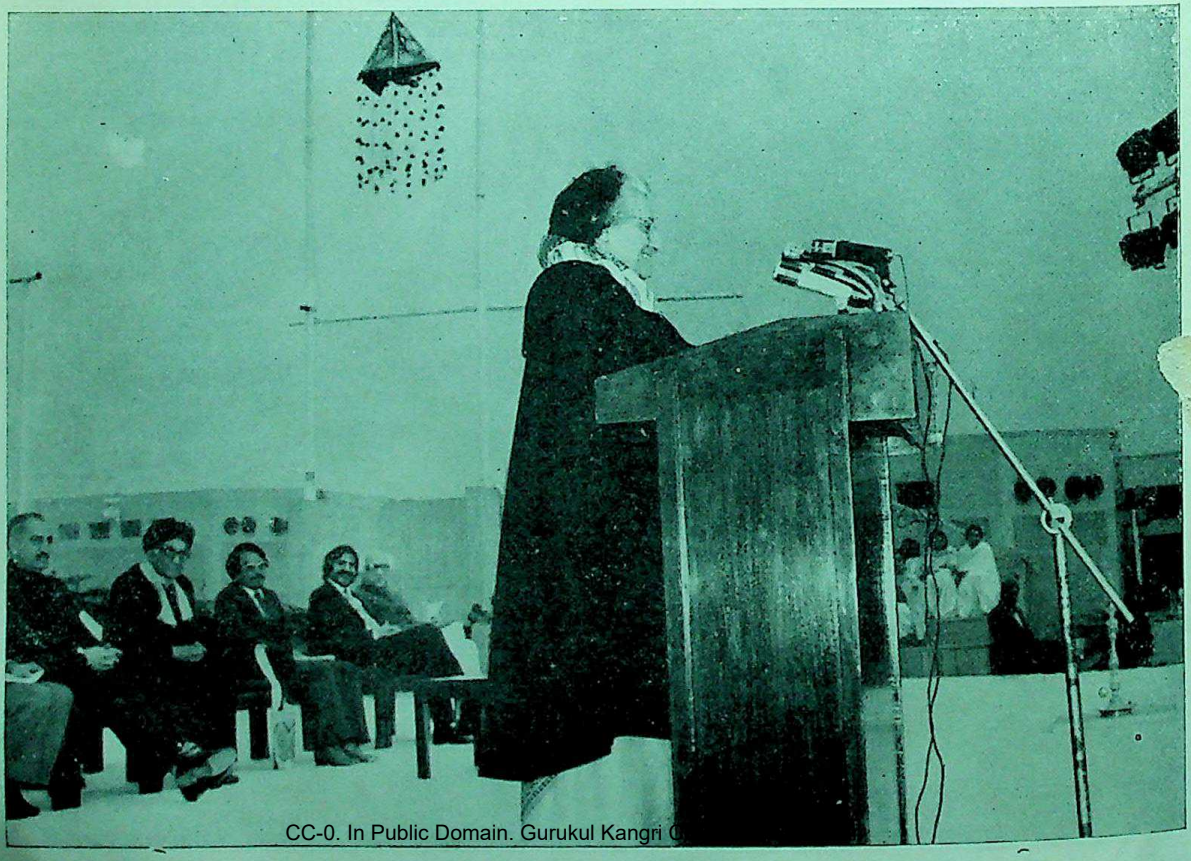
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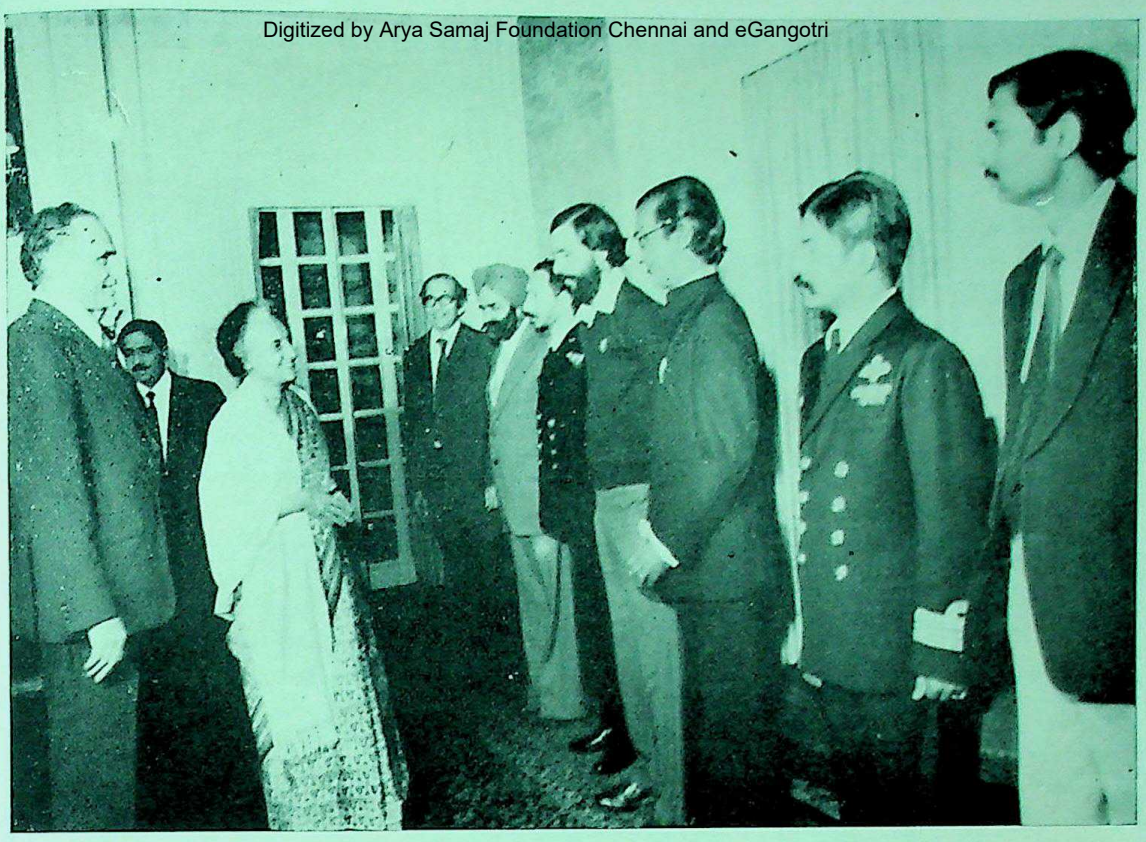
A view of the Mathura Oil Refinery, which was inaugurated on 14 *May* 1983

The Prime Minister opens the 5*th World Book Fair in New Delhi on* 4 *February* 1982



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Prime Minister Indira Gandhi greeting members of the Indian scientific expedition to Antarctica, when they called on her on 1 *March* 1982

Sq. Ldr. Rakesh Sharma and Wing Commander Ravish Malhotra, who have been selected for a joint Indo-Soviet space flight



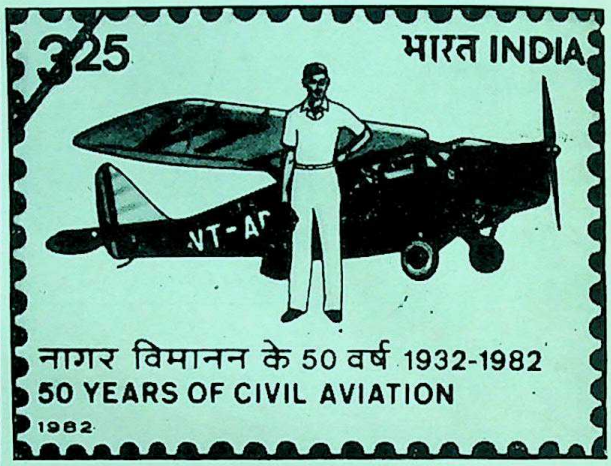
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Facsimiles of four commemorative stamps issued in 1982 *by the Posts and Telegraphs Department*

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wide range of fields including metallurgy, vacuum technology, magneto hydrodynamics, laser, plasma physics, electronics, agriculture biology, medicine and control engineering is being done at BARC. The technological know-how developed in a number of areas has been passed on to the industry. BARC also conducts a country-wide personnel monitoring service for evaluating radiation exposure of workers in institutions using radiation sources.

The Reactor Research Centre (RRC) at Kalpakkam near Madras is primarily for carrying out the research and development work needed to develop fast reactor technology. A 15 mwe (mega Watt electrical) Fast Breeder Test Reactor (FBTR) is under construction at RRC.

Nuclear Power

The Power Project Engineering Division (PPED) of DAE is responsible for the construction and operation of nuclear power stations. PPED is operating two nuclear power stations, namely 2 × 210 mwe Tarapur Atomic Power Station at Tarapur nearly 100 km north of Bombay and the 2 × 220 mwe Rajasthan Atomic Power Station at Rana Pratap Sagar near Kota. Construction of the 2 × 235 mwe Madras Atomic Power Project at Kalpakkam near Madras is more or less completed. The reactor of unit-1 of the Madras Atomic Power station attained criticality on 2 July 1983. The unit synchronised to the grid and power flow was switched on by the Prime Minister on 23 July 1983. Another 2×235 mwe nuclear power station is at a fairly advanced stage of construction at Narora in the western part of Uttar Pradesh. Construction of the fifth nuclear power station consisting of 2×235 mwe units at Kakrapar has been recently started.

The Tarapur Atomic Power Station is based on enriched uranium fuelled boiling water reactor while the subsequent ones are all natural uranium fuelled heavy water moderated and cooled reactors. Besides, a small heavy water plant functioning at Nangal in Punjab, four heavy water plants are going through the initial stages of production and commissioning at Vadodara, Kota, Talcher and Tuticorin. Two additional heavy water plants have been taken up at Thal-Vaishet (Maharashtra) and Manuguru (Andhra Pradesh).

Public Sector Undertakings

The Atomic Minerals Division (AMD) is one of the first units started by the AEC. AMD with its headquarters at Hyderabad is responsible for prospecting and development work related to uranium, thorium, beryllium, niobium and tantalum. The Indian Rare Earths Ltd. (IRE), a Central Government company under the DAE, operates the mineral sands industry in Manavalakurichi and Chavara and the rare earths plant at Alwaye. It also produces thorium products at Bombay. IRE is setting up the Orissa Sands Complex (OSCOM) for enhancing rare earths production. The Uranium Corporation of India Ltd. (UCIL), another public sector undertaking under DAE, mines and processes uranium ore at Jaduguda in Bihar. The Nuclear Fuel Complex (NFC) at Hyderabad fabricates nuclear fuel for the power reactors and also produces zirconium alloy products and stainless steel tubes. NFC also produces certain special materials needed for electronics industry. The Electronics Corporation of India Ltd. (ECIL), the public sector undertaking set up by DAE at Hyderabad in order to exploit the expertise developed in BARC, manufactures electronic instruments and equipment for nuclear as well as non-nuclear uses. ECIL also makes consumer

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electronics goods such as TV sets, calculating machines and computers.

Another area in which India has developed expertise is the technology of underground nuclear explosions. On 18 May 1974 India became the sixth nation to conduct a nuclear experiment.

A third research centre is planned at Indore primarily to develop advanced technologies such as fusion, laser and accelerator applications.

SPACE RESEARCH

The Indian space programme began in 1962 when the Indian National Committee for Space Research was formed in the Department of Atomic Energy of the Government of India. In 1969, the Indian Space Research Organisation (ISRO) was created to plan, manage and execute the nation's growing activities in space science, space technology and space applications.

Government established the Space Commission in June 1972, backed by the Department of Space (DOS) and entrusted DOS with the responsibility for conducting India's space programme. ISRO functions under DOS as its research and development organisation. The Space Commission, the Department of Space and the Indian Space Research Organisation have their headquarters in Bangalore.

The primary aims of the Indian space programme are the applications of space science and technology to further national developmental objectives in mass communications and education *via* satellites, the survey and management of natural resources through remote sensing technology from space platforms and the development of space technology with the maximum degree of self-reliance.

INDIAN SPACE RESEARCH ORGANISATION

The Indian Space Research Organisation (ISRO) is responsible for the planning, execution and management of space research activities and space applications programmes of the DOS. The activities of ISRO are carried out at its four space centres namely, Vikram Sarabhai Space Centre (VSSC), Trivandrum; ISRO Satellite Centre (ISAC) and the Auxiliary Propulsion System Unit (APSU), Bangalore; SHAR Centre, Sriharikota, Andhra Pradesh; and Space Applications Centre (SAC), Ahmedabad.

The Physical Research Laboratory (PRL) in Ahmedabad, an institution supported mainly by the DOS, conducts research programmes in space and related sciences. The National Remote Sensing Agency (NRSA) at Secunderabad, an autonomous registered society, mainly supported by the Department, utilises modern remote sensing techniques supporting the planning and management of the country's natural resources and provides operational support to various users.

The activities of the major establishments of ISRO are :

Vikram Sarabhai Space Centre

The Vikram Sarabhai Space Centre (VSSC), Trivandrum named after Prof. Vikram A. Sarabhai (1919–71), the founder of the Indian space programme, encompasses all aspects of work related to the development of sounding rockets and satellite launch vehicles, scientific and technological payloads, ground-based and vehicle-borne instrumentation and production facilities for propellants and rocket

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hardware. VSSC is also responsible for building and launching the Rohini (including Centaure) series of sounding rockets for meteorological and scientific investigations of the upper atmosphere. India's first satellite launch vehicle, SLV-3, successfully launched on 18 July 1980 from ISRO's SHAR Centre at Sriharikota was developed at this Centre. This four stage solid propellant rocket placed a 35-kg indigenous Rohini Satellite (RS-1) into a near-earth orbit.

The first developmental flight of SLV-3 took place on 31 May 1981 from the SHAR range. It placed a 38-kg Rohini (RS-D-1) satellite into a near-earth orbit, though into one lower than expected. The fundamental objective of this flight was to evaluate the vehicle performances for future operational flights. The satellite carried a land-marker sensor payload. Though expected to last for 90 days, the mission came to a premature end after 9 days with the satellite re-entering the atmosphere due to the under performance of the vehicle.

SLV-3-D-2 was successfully launched on 17 April 1983 from SHAR. It placed the 41-kg RS-D-2 satellite in near-earth orbit.

In an effort to develop a reliable launch vehicle capable of placing a 150-kg class of satellite in a low-earth orbit with a minimum life time of 100 days, the Augmented Satellite Launch Vehicle is taking shape. The first flight is scheduled in 1984. Polar Satellite Launch Vehicle (PSLV) for putting 1,000-kg class satellites into sun-synchronous orbits is another programme on the anvil.

The Space Science and Technology Centre of VSSC is the main research and development laboratory. Solid propellant for the rockets is produced at the Rocket Propellant Plant, while the rockets and other hardware are made at the Rocket Fabrication Facility. The Propellant Fuel Complex produces special materials required for the processing of propellants. Liquid propellants for rockets have also been developed on a laboratory scale. An experimental plant for the production of ammonium perchlorate, used as oxidiser in solid propellants, has been set up at Alwaye, Kerala.

VSSC operates and maintains the Thumba Equatorial Rocket Launching Station (TERLS), which has been recognised by the United Nations as an international facility for sounding rocket experiments to investigate problems of meteorology and ionosphere over the geomagnetic equator running close to Thumba and for other experiments. Since November 1963, when the range became operational, more than 1,400 sounding rockets of different makes have been launched for meteorological, ionospheric, aeronomic and astronomical studies. Scientists from Bulgaria, France, Federal Republic of Germany, Japan, UK, USA and USSR have participated in cooperation with their Indian counterparts, in many of these experiments.

ISRO Satellite Centre

The ISRO Satellite Centre (ISAC), Bangalore is responsible for the design, fabrication and integration of spacecraft and the development of satellite technology. The first Indian satellite, Aryabhata, named after the famous ancient Indian astronomer and mathematician, was designed and fabricated at this Centre. This 360-kg satellite was launched on 19 April 1975 into a near-circular orbit of 600 km at an inclination of 51° to the equator from a Soviet Cosmodrome, using a Soviet Intercosmos rocket. The spin-stabilised satellite survived in orbit well beyond the design life-time of six months. All the technological systems on board the satellite have functioned well.

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With the launching of Aryabhata, India has acquired indigenous capability in satellite technology, namely, to design and fabricate a space-worthy system and evaluate its performance in orbit, evolve the methodology of conducting a series of complex operations on the satellite and set up the necessary receiving, transmitting and tracking systems, besides the establishment of the infrastructure for fabrication of satellite systems.

The second Indian satellite, Bhaskara, was launched on 7 June 1979 from a Soviet Cosmodrome for earth observations. The 444-kg experimental satellite, named after the ancient Indian astronomer, was designed and built by ISRO. It contains sophisticated instruments for carrying out remote sensing experiments over India, using TV cameras and microwave radio meters. Bhaskara experiments are useful in the fields of forestry, hydrology, snow-cover and snow-melt, geology, soils, land use and ocean surface studies.

An improved version of Bhaskara satellite, called Bhaskara-II, with a wider scanning range, was launched on 20 November 1981 from the Soviet Union using a Soviet vehicle. The 436-kg satellite is spin-stabilised. It carries as principal payloads two television cameras and a three-frequency microwave radiometer system. The TV camera data will help the studies in hydrology, forestry and geology, while the radiometer data will aid the monitoring of ocean surface state.

Rohini Satellite (RS-1), developed at ISAC, was the first Indian satellite to be launched from India using the indigenous SLV-3 vehicle. A series of Rohini satellites covering selected scientific and application payloads for launch by future SLV vehicles are under development at the Centre.

India's first experimental three-axis-stabilised geostationary communication satellite APPLE (Ariane Passenger Payload Experiment), built at ISAC, was successfully orbited on 19 June 1981 by European Space Agency, Ariane launcher from Kourou in French Guyana on its third developmental flight. From an initial transfer orbit, APPLE was placed in a 24-hour geostationary orbit over 102° East on 16 July 1981. All the systems on board the 670-kg spacecraft designed for conducting communication experiments in C-band are functioning normally except that one of the two solar panels could not be deployed in orbit. APPLE has enhanced India's technological capability in building a three-axis-stabilised geostationary communication satellite. It is being used for conducting experiments in communication technology and for domestic communication, radio-networking, data relay, remote area communication, etc., on an experimental basis. While the communication payloads of the satellite were built at Space Applications Centre, important sub-systems like Apogee Boost Motor and secondary propulsion systems were built at VSSC.

Space-based remote sensing of natural resources being one of the major goals of ISRO, efforts are underway to develop a semi-operational Indian Remote Sensing Satellite (IRS) by mid 80s.

SHAR Centre

The SHAR Centre at Sriharikota Island in Andhra Pradesh, is being developed as a range for launching bigger satellite launch vehicles, like ASLV and PSLV. India's first satellite launch vehicle, SLV-3 was launched from the Centre.

A comprehensive test facility for conducting various ground tests of rocket motors and sub-systems has been set up at Sriharikota. This test facility is being augmented for the PSLV programme.

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The ISRO Telemetry, Tracking and Command Network (ISTRAC), which has been set up to manage the telemetry and telecommand network of ISRO, has supported all ISRO missions such as Aryabhata, Bhaskara, RS-1 and APPLE with its network stations at SHAR Centre, Ahmedabad, Car Nicobar and Trivandrum.

Space Applications Centre

Space Applications Centre (SAC), Ahmedabad is engaged in the planning and execution of the space application projects of ISRO. Its objective is to apply space science and technology to practical uses. To achieve this goal, SAC has taken up work in telecommunications and television broadcasting and reception *via* satellites; use of remote sensing techniques to survey natural and renewable earth resources; studies in space meteorology and satellite geodesy.

The Centre conducted the Satellite Instructional Television Experiment (SITE), the year-long (August 1975 to July 1976) experiment in direct broadcast of television programmes *via* the National Aeronautics and Space Administration (NASA) satellite ATS-6. During the experiment, community TV sets were installed in 2,400 villages in Rajasthan, Bihar, Orissa, Madhya Pradesh, Karnataka and Andhra Pradesh and instructional programmes were beamed directly *via* the satellite.

Under an agreement between ISRO and the Symphonie organisation, one of the two transponders aboard the Franco-West German Symphonie satellite was made available for Indian experiments in satellite telecommunications for two years beginning from June 1977. Known as the Satellite Telecommunications Experiments Project (STEP), this two-year project was taken up by ISRO in collaboration with the Posts and Telegraphs Department. Under STEP, experiments in remote area communications using transportable terminals, radio-networking, emergency communications, digital communications, multiple access, integration of satellite circuits into terrestrial network and multiple audio-video transmission were conducted. The project was mainly aimed at providing a system test of geo-synchronous communication satellite and to sharpen India's expertise in the design, development, fabrication and operation of communication systems involving geo-stationary satellite.

The ground network for STEP consisted of the earth stations at Ahmedabad, Delhi and Madras, Transportable Remote Area Communication Terminal (TRACT) and the Emergency Communication Terminal (ECT).

One important area of SAC activity is the remote sensing of natural and renewable resources. ISRO and the Indian Council of Agricultural Research conducted, during 1974-75, a joint experiment called the Agricultural Resources Inventory and Survey Experiment (ARISE), employing remote sensing techniques to assess crops and land-use pattern in Anantapur district of Andhra Pradesh and Patiala district of Punjab.

The remote sensing techniques are being applied for a wide range of purposes, such as collection of data relating to agriculture, detection of minerals, management of water resources, forest inventories and meteorological studies. SAC is developing sensors for use from balloons, aircraft and space craft to collect data for these applications. Some of these sensors are : infra-red scanner, multispectral scanner, microwave radiometer, vidicon TV camera and linear imaging scanning sensor.

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Many remote sensing experiments have so far been conducted to study aspects of agriculture and landscape features over sites in Pune, Bombay, Sriharikota Island, Jaipur, Bangalore and the districts of Anantapur, Patiala and Panchmahals (Gujarat).

SPONSORED RESEARCH

Various universities and academic institutions in the country are identified and encouraged by ISRO to undertake research and development studies in space science, space technology and space applications relevant to the Indian Space Programme.

Monsoon Experiment

ISRO participated in the Monsoon Experiment (MONEX) conducted during 1979. A regional component of an international study called Global Atmospheric Research Programme (GARP), MONEX was conducted jointly by the World Meteorological Organisation and the International Council of Scientific Unions. The India Meteorological Department was the main executing agency of this project in India. ISRO's contribution to the project comprised collection of wind data using rockets and meteorological data collected by using omega sondes. The Balasore Rocket Launching Station was set up by ISRO during MONEX to launch rockets for meteorological observations.

The Indian Middle Atmosphere Programme (IMAP) is a nationwide cooperative enterprise in scientific research to investigate the physical and chemical phenomena and processes taking place in the atmosphere between 10-100 km.

Indian National Satellite

The Department of Space, in close cooperation with the Ministries of Communications, Tourism and Civil Aviation and Information and Broadcasting, has taken up the establishment of the Indian National Satellite (INSAT) system. The INSAT-1 system is an operational space system providing telecommunications, meteorology and television services from identical multipurpose satellites in geostationary orbit. The proposed system envisages a very significant telecommunications component providing for long distance telephony, communication with remote areas and islands and emergency communications. The meteorological capability includes 24-hour observation of weather system, data collection and relay from remote, unattended platforms and disaster warning. Television capability relates both to direct TV broadcasting from satellite to community TV sets in rural areas and to radio networking.

The INSAT-1 system is slated to have an initial space segment comprising two multipurpose satellites in geostationary orbit at 74°E and 94°E longitude positions. The INSAT-1A satellite was successfully launched on 10 April 1982 from Cape Canaveral, USA, and was positioned at 74°E longitude. Operational utilisation of the various service payloads on board INSAT-1A was being derived as planned, until the time when, following the loss of earth lock on 4 September 1982 due to an unexpected moon interference and subsequent total depletion of on-board propellants, INSAT-1A was deactivated on 6 September 1982. INSAT-1B was launched on 30 August 1983.

The INSAT-1 satellites are built by the Ford Aerospace and Communications Corporation (FACC) to the specifications of the Department of Space. The Department of Space has the responsibility for

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establishment and operation of the INSAT-1 space segment. The Posts and Telegraphs Department has the responsibility for establishment, operation and maintenance of the telecommunications utilisation of the system. The India Meteorological Department has the responsibility for establishment and operation of the meteorological ground segment and its utilisation. Doordarshan is charged with the responsibility of establishment and operation of direct TV broadcasting to augmented TV receivers in rural and remote areas, national networking of terrestrial TV transmitters, and TV distribution within India. All India Radio has the responsibility for establishment and operation of Radio Networking Services.

The telecommunications ground segment of INSAT-1 consists of five large earth stations, 13 medium earth stations, 10 remote area terminals and three road transportable/air liftable emergency communication terminals. C-band channels will be used mainly for thick and thin route telephony, S-band channels for TV broadcast to community receivers and Radio Networking and Disaster Warning System service using low-level injected carriers. Unattended Data Collection Platforms will relay meteorological and hydrological data *via* Data Relay Transponder to a central station.

The Master Control Facility for INSAT satellites is located in Hassan district of Karnataka. It consists of two fully redundant Satellite Control Earth Stations and a Satellite Control Centre.

The launch and associated services for INSAT-1 system are obtained from NASA on a cost reimbursible basis as per agreement concluded in November 1980.

Satellite Tracking and Ranging Station

The Satellite Tracking and Ranging Station (STARS), a part of ISTRAC, was set up on 23 January 1977 at Kavalur in Tamil Nadu in collaboration with the USSR Academy of Sciences. In addition to the tracking cameras, there is also a ranging laser at the station. It is now possible to determine orbits of our own satellites accurately and the data collected is useful for geodetic purposes.

Physical Research Laboratory

The Physical Research Laboratory (PRL), Ahmedabad conducts basic research in space sciences for understanding the structure and dynamics of the earth's upper atmosphere, the solar-terrestrial relationship, astrophysical problems, etc.

National Remote Sensing Agency

The National Remote Sensing Agency (NRSA) carries out surveys of various natural resources, using remote sensing techniques. Satellite imagery, multi-spectral scanner data from aerial flying and aerial photography are made use for such surveys. The laboratory premises of NRSA are located at Hyderabad and the research flight facility with four aircraft (for high, medium and low altitude flying), fitted with various sensors, is located at Bangalore.

NRSA execute resources survey programmes using the remote sensing technology based on aircraft as well as satellite imagery. Landsat and meteorological data were acquired using the earth station commissioned near Hyderabad. They were processed and distributed to several users within and outside India. A data centre has been set up for storage, retrieval and distribution of satellite data. As part of the organisational restructuring of DST, NRSA was transferred to the Department of Space, in December 1980.

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ELECTRONICS

The Government of India set up a separate Department of Electronics in 1970. The Electronics Commission came into being next year to formulate policies in the field of electronics for achieving an integrated and self-reliant base in the country. The Department of Electronics, being an executive arm of the Electronics Commission, has the responsibility for implementing the policies and decisions of the Commission by interacting with other ministries and departments and various organisations concerning the use of electronics. The Information, Planning and Analysis Group (IPAG) provides information and analytical support necessary for policy formulation and plays an important role in the perspective planning and retrospective appraisal of the various activities of the Department. The Data Bank and Information Division (DBID) of IPAG maintains basic data about the indigenous electronics industry in a computerised data bank. The growth of research and development in the electronics industry is guided by two Advisory Councils, namely, Technology Development Council (TDC) and National Radar Council (NRC). TDC has now become an accepted national forum for the overall research and development planning, group identification with projects formulation, implementation and their coordination. NRC is an inter-ministry forum for all matters concerning radars, navigational aids, sonars and underwater electronic systems, infra-red and laser based equipment and allied techniques and technologies.

Several ministries of the Central Government have major involvement in the electronics industry as users, producers and executors of research and development programmes. These include Ministries of Defence, Communications, Information and Broadcasting; the Departments of Space, Atomic Energy, Science and Technology; and various laboratories of the Council of Scientific and Industrial Research.

Production

The electronics industry have shown a substantial growth during 1982 where both the equipment as well as component sectors have shown good growth. The production of electronics during the year was worth Rs 1,205 crore compared to Rs 856 crore in 1981 and Rs 806 crore in 1980. Thus, compared to a very modest growth of 6.2 per cent, registered during 1981, the growth rate in 1982 is about 40.7 per cent. The figures for 1982 include production of colour TV receivers worth about Rs 40 crore which were assembled using SKD kits imported to meet the local demand during the Ninth Asian Games. The growth rate achieved by the industry without colour TV sets comes to about 36 per cent.

The production of consumer electronics items was worth Rs 337 crore in 1982 compared to Rs 246 crore during 1981. The major highlights of the growth has been an increase in production of radio receiver to a level of 70 lakh in 1982 compared to 65.3 lakh in 1981; that of black and white TV receiver from 4.35 to 5.7 lakh. During 1982, 70,000 coloured TV sets were produced.

Export

The electronics export from India has registered a significant growth in 1982. It reached a value of Rs 89 crore as compared to Rs 56.4 crore in 1981, thereby recording an increase of 57.7 per cent over the previous year. The large share of increase in electronics export

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is contributed by Free Trade Zones including Santa Cruz Electronics Export Processing Zone (SCEEPZ) which is Rs 48.5 crore as against Rs 25.3 crore during 1981. There are 64 units approved in SCEEPZ out of which 44 are in operation producing high technology electronic items for cent per cent export.

Technology Development

To build up the technology capability and upgrading the same on a continuous basis, the Electronics Commission, since its inception, has been sponsoring, technology development projects at academic institutions, national laboratories and production organisations. Overall research and development planning, group identification with project formulations, implementation and their coordination is done with the help of Technology Development Council (TDC) and its specialist working groups. By the end of 1982-83, Department of Electronics has already sponsored about 250 technology development projects spread over 70 implementing organisations. These include new projects numbering 25 initiated during 1982-83. Out of these about 100 projects have already been completed.

Computers

In the area of computers, the activities of Department of Electronics pertain to developmental, promotional and regulatory. These activities include computerisation of important sectors like defence, energy, railways, communication and education, building up of indigenous manufacture capability, monitoring of import of computer items and execution of plan projects. Indigenous computer industry has further grown both in the area of minicomputer/microprocessor based systems as well as in the lower and midicomputers. Midicomputers are manufactured by Electronics Corporation of India Ltd., and International Computer India Manufacture. The Department has initiated a computer manpower development programme covering teachers training programme, B. Tech/ M. Tech programme, Masters in computer applications programme and curriculum development and setting up of inter-computer links in educational sector. To provide the common computing facilities to meet computing needs of various regions in the country as well as to promote software development, regional planning applications for state governments, etc., Regional Computer Centres (at Calcutta and Chandigarh) and computer centres (at Kanpur and Roorkee) are in operation. The National Centre for Software Development and Computing Techniques, Bombay set up with UNDP assistance has been functioning since 1974.

Presently computers are being utilised for applications such as image processing, medical diagnostic, training simulators, photocomposition, numerically controlled machines, intelligent test and measuring equipment, language laboratory, computer aided instruction/design management application, on line production planning and control, etc.

National Informatics Centre

The National Informatics Centre (NIC) has been set up to catalyse computer usage in decision making mechanism in various ministries and departments of Central Government. During 1982-83, NIC provided complete information support to Asian Games. For this 35 computer terminals were installed in various stadia. NIC also provided computer based documentation facility and electronic mail service during the Seventh Non-Aligned Summit at New Delhi. There are 15 specialised divisions/groups in NIC providing service to the user organisations in building up information systems.

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Industrial Electronics Promotion Programme

Under the Industrial Electronics Promotion Programme (IEPP) promotion or appropriate automation techniques and new technologies such as application of microprocessors in various fields has been progressing. During 1982-83, the UNDP approval for an aid of $ 6,53,200 for the project has been received. Four Regional Centres at New Delhi, Ahmedabad, Trivandrum and Calcutta have been established under the programme. They will concentrate on specific industrial sectors such as railways, steel, textiles, energy, chemicals, etc. Training programmes on appropriate automation techniques are continued. A training programme on applications of microprocessors was given to National Physical Laboratory, New Delhi. Similar programme has also been sponsored at Indian Institute of Technology, New Delhi, and Indian Institute of Science, Bangalore. A teachers training programme on microprocessor education has also been initiated for engineering colleges.

Manpower Development

A number of programmes of manpower development for the various facets of the electronics industry and research have been undertaken under the Technology Development Council and National Radar Council. The Department of Electronics is setting up a Northern Regional Centre for Electronics Design Technology (CEDT) at Srinagar on the same lines as at Bangalore. The Centre at Srinagar is expected to start functioning in 1983. CEDT, Bangalore which is already functioning has entered the fourth phase of its operation.

Standardisation and Quality Control Programme

Under standardisation, testing and quality control programme a countrywide network of testing and calibration facilities for electronics has been planned in conformity with the proposed National Measurement System. Currently 16 electronics test and development centres (ETDC) have been set up in different states. In order to provide a higher level of technical back up to ETDC, four electronics regional test laboratories (ERTL) have also been planned at Bombay, Delhi, Calcutta and Bangalore. ERTL, Delhi will carry out the function of ETDC, Delhi also.

Corporations

The Electronics Trade and Technology Development Corporation (ETTDC) was set up in 1974 with the objective of expanding foreign trade in electronics and undertaking development of technology in key areas with particular emphasis on expanding exports. The Corporation offers services to the electronics industry particularly to the small scale sector in making available inputs of raw materials and components and test and measuring instruments at competitive prices.

The Computer Maintenance Corporation was set up in 1975 to provide a complete range of computer support service within the country. During this period CMC's operations have stabilized and the Corporation has expanded not only in its hardware maintenance base but also in other areas of computer support. Since 1978-79 when subsequent to the withdrawal of IBM from India, CMC had taken over support of all IBM equipment, the Corporation has achieved a compound growth rate of 20 per cent and has doubled its turnover within a period of four years. Today CMC far from being a maintenance organisation is a total computer support company in India.

Semiconductor Complex (SCL) has completed a major portion

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of the civil works for various buildings and awarded tenders for all the facilities. It is expected that all the facilities will be completed in time to commence wafer fabrication from October 1983.

SCL assisted some state electronic development corporations in implementing their digital electronic watch projects.

Radar Systems Consultancy and Production Corporation is a consultancy organisation in the field of radars and navigational aids.

SCIENTIFIC AND INDUSTRIAL RESEARCH

The Council of Scientific and Industrial Research (CSIR), constituted in 1942 by a resolution of the then Central Legislative Assembly, is an autonomous body registered under the Registration of Societies Act, 1860. With its network of national laboratories and research associations, it is the premier organisation for scientific and industrial research under the government auspices and supports research in universities and other centres of learning.

As on 1 April 1983, the CSIR was having 38 national laboratories/institutes all over the country. Besides, there were 2 industrial research associations and 138 extension centres/field stations. These laboratories, associations and field stations/centres are being manned by 4,161 scientists and 10,405 scientific and technical staff. There are 16 research committees. About 540 schemes are in progress.

The CSIR has services of 34 emeritus scientists and 430 pool scientists. More than 2,900 research fellows are also working. The Scientists Pool introduced in 1958 is intended to provide temporary placement to well qualified Indian scientists, engineers and medical personnel from abroad, and later was extended to highly qualified Indian scientists who had not been abroad. The CSIR also maintains a register of scientists and technical personnel in the country.

The Council has set up polytechnology transfer centres in various states to extend technological assistance to industries, particularly in the medium and small scale sectors. It has a scheme to facilitate its own scientists, technologists and engineers to set up industries based on CSIR know-how. Eight industries based on such technologies have been set up.

Award

The Council instituted an award in 1957 in the memory of its first Director and architect, Dr. Shanti Swarup Bhatnagar (1894—1955). The award is made each year for outstanding contribution in science including engineering and technology. Five or more prizes, each of the value of Rs 20,000 are usually awarded annually in the following disciplines : Physical Sciences, Chemical Sciences, Biological Sciences, Medical Sciences and other Sciences.

NATIONAL LABORATORIES

The CSIR laboratories and industrial research associations working under the auspices of CSIR are grouped into five distinct disciplines.

Physical and Earth Sciences

The national laboratories coming under the physical and earth sciences group are: the National Physical Laboratory, New Delhi (estd. 1950) functions as a statutory agency for maintenance of national standards; the Central Electronics Engineering Research Institute, Pilani (estd. 1953; extension centres at Madras and New Delhi) has successfully developed electronic process control instruments for sugar industries;

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the Central Scientific Instruments Organisation, Chandigarh (estd. 1959; service and maintenance centres at Bombay, Calcutta, Chandigarh, Cochin, Hyderabad, Jaipur, Lucknow, Madras and New Delhi) has developed a haemodialysis machine and continued to conduct regular training courses in instrument technology; the National Geophysical Research Institute, Hyderabad (estd. 1961) in collaboration with the Central Groundwater Board has undertaken groundwater exploration programmes and continued air-borne geophysical surveys; and the National Institute of Oceanography, Panaji (estd. 1966; regional centres at Bombay, Cochin and Waltair) has undertaken detailed studies for the exploration and mapping of polymetallic nodules using its own research vessel *Gaveshani* and two more chartered ships.

Chemical Sciences

The national laboratories under the chemical sciences group are: the National Chemical Laboratory, Pune (estd. 1950); the Central Electrochemical Research Institute, Karaikudi (estd. 1953; field stations at Cochin, Madras and Mandapam) has designed and fabricated a continuous wire plating unit for plating nickel on aluminium wires used in house wiring; the Central Salt and Marine Chemicals Research Institute, Bhavnagar (estd. 1954; field stations at Berhampore and Mandapam) has commissioned a mobile desalination plant to demonstrate conversion of brackish water in rural areas to potable water; the Regional Research Laboratory ,Hyderabad (taken over in 1956); the Regional Research Laboratory, Jorhat (estd. 1959; field stations at Nagaland, Manipur, Meghalaya, Tripura and Arunachal Pradesh); the Indian Institute of Petroleum, Dehra Dun (estd. 1959; field stations at Jawahar Nagar and New Delhi) works on the development of processes for petrochemical intermediates and additivies; and the Central Fuel Research Institute, Dhanbad (estd. 1950) undertook research and development on efficient utilisation of coal and physical and chemical surveys of Indian coals through its field stations at Bilaspur, Jammu, Jealgora, Jorhat, Nagpur, Nankan and Raniganj.

Biological Sciences

The national laboratories under the biological sciences group are : the Central Food Technological Research Institute, Mysore (estd. 1950; experimental stations at Bombay, Hyderabad, Lucknow, Ludhiana, Mangalore and Nagpur); the Central Drug Research Institute, Lucknow (estd. 1951); the Central Leather Research Institute, Madras (estd. 1951); regional centres at Bombay, Calcutta, Jalandhar, Kanpur and Rajkot) renders technical services to tanneries in the small scale and rural sectors in different regions; the National Botanical Research Institute, Lucknow (taken over in 1953; research stations at Bangalore and Banthra); the Indian Institute of Chemical Biology, Calcutta (taken over in 1956); the Regional Research Laboratory, Jammu (taken over in 1957; field stations at Chatham, Palampur, Srinagar and Varinag); the Central Institute of Medicinal and Aromatic Plants, Lucknow (estd. 1959; regional centres at Bangalore, Darjiling, Jammu, Kodaikanal and Pant Nagar) is providing aromatic and medicinal plant products to the pharmaceutical and perfumery industries; the Industrial Toxicology Research Centre, Lucknow (estd. 1965) studies the harmful effect of industrial toxins for developing preventive measures; the Tea Research Association (estd. 1956) supports scientific research and undertakes advisory work for the betterment of tea industry in India, and the Centre for Cellular and Molecular Biology, Hyderabad (estd. 1976) undertakes fundamental re-

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search in the frontier areas of cellular and molecular biology; the Institute of Microbial Technology (estd. 1983).

Engineering Sciences

The national laboratories under the engineering sciences group are : the Central Glass and Ceramic Research Institute, Calcutta (estd. 1950; regional centres at Ahmedabad and Khurja) has developed process know-how based on which optical glass is being commercially produced at the Bharat Ophthalmic Glass Ltd., as a result of which the entire requirement of the country for optical glass can be met from indigenous sources; the National Metallurgical Laboratory (estd. 1950; regional stations at Ahmedabad, Batala, Calcutta, Digha, Howrah and Madras); the Central Road Research Institute, New Delhi (estd. 1952) is engaged in the work of building up a simulation model for traffic flow under Indian conditions; the Central Building Research Institute, Roorkee (estd. 1953; field station at Calcutta and extension cells at Ahmedabad and Bhopal) has designed and fabricated permanent type of shelters to accomodate the members of the second Indian expedition to Antarctica; the Central Mechanical Engineering Research Institute, Durgapur (estd. 1958; research and development centres—MERADO—at Calcutta, Cochin, Durgapur, Ludhiana, Madras and Pune) through its Ludhiana centre, has developed a multi-spindle reaming machine, a versatile single-spindle automatic turret lathe and a tractor-drawn combine harvester; the Central Mining Research Station, Dhanbad (estd. 1956) works on mine safety, design of equipment used in mining and developing of mining machinery; the National Environmental Engineering Research Institute, Nagpur (estd. 1958; laboratories at Ahmedabad, Bombay, Calcutta, Cochin, Delhi, Hyderabad, Jaipur, Kanpur and Madras) carries out research in sanitation, disposal of sewage and industrial wastes, industrial hygiene and pollution; the National Aeronautial Laboratory, Bangalore (estd. 1959) has set up a 1.2 m trisonic wind tunnel, a materials laboratory and a fatigue testing laboratory as national facilities; the Structural Engineering Research Centre, Madras (estd. 1965) and Roorkee (estd. 1965) undertake research in specialised designs and structural problems connected with buildings, bridges and other structures; the Regional Research Laboratory, Bhubaneswar (estd. 1964); the Regional Research Laboratory, Trivandrum (estd. 1978) has developed a process for bottling of coconut water; the Regional Research Laboratory, Bhopal (estd. 1982) has taken up fundamental studies on properties of natural fibres; and the Electrical Research and Development Association, Vadodara (recognised by CSIR in 1977) has offered consultancy services to the electrical manufacturing industry.

CECON

The Civil Engineering Consultancy Service (CECON) was set up by the CSIR in 1975. Its constitutent units are : the Central Building Research Institute, Roorkee; the Structural Engineering Research Centre, Roorkee and Madras; the National Environmental Engineering Research Institute, Nagpur; the Central Road Research Institute, New Delhi; the Cement Research Institute of India, New Delhi and the National Botanical Research Institute, Lucknow.

CECON, which functions from the premises of the Central Road Research Institute, New Delhi, provides national and international consultancy services in civil engineering, particularly to developing countries.

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Information Science

The Publications and Information Directorate (PID), New Delhi (estd. 1951), and the Indian National Scientific Documentation Centre (INSDOC), New Delhi (estd. 1952), of CSIR are engaged in dissemination of scientific and technical information. The PID brings out encyclopaedic volumes on raw material resources and industrial products under the general title *Wealth of India* and ten scientific research periodicals besides other publications on scientific and technical information. The INSDOC provides documentation and translation services and maintains a National Science Library. It also publishes *Indian Science Abstracts* and *Annals of Library Science Documentation.*

NISTADS

The National Institute of Science, Technology and Development Studies (NISTADS), New Delhi undertakes studies to understand the mechanics of socialisation of scientific and technological developments and utilise the knowledge in the planning of science and technology development. The Institute has carried out a number of studies in the areas of technology assessment and alternative technologies, planning of science and technology, dynamics of science, technology and society and scientific and technical manpower planning.

AGRICULTURAL RESEARCH

The Department of Agricultural Research and Education, set up in 1973 in the Ministry of Agriculture, is responsible for coordinating research and educational activities in the fields of agriculture, animal husbandry and fisheries in India. Besides, it helps to bring about inter-institutional and intra-institutional collaboration both with national and international agencies engaged in the same and allied fields. The Department provides government linkage to the Indian Council of Agricultural Research (ICAR).

Indian Council of Agricultural Research

The ICAR set up in July 1929 as a registered society is the apex body for formulating plans and coordinating agricultural, animal husbandry and fisheries sciences and research and their application at field-level through the medium of extension agencies under the Central and state governments and also through the agricultural universities. The ICAR is involved directly in the research set up through the existing 35 central institutes, 3 national research centres, 5 project directorates and 58 all India coordinated research projects. In the Sixth Plan 4 institutes, 5 national research centres and 12 all India coordinating projects are being added.

Agricultural Universities

There are 23 agricultural universities all over the country to tackle agricultural problems. The universities perform 3 major functions, *viz.* research, education and extension education in integrated manner and receive grants from the ICAR.

The ICAR has also established a large number of first-line training institutions, Krishi Vigyan Kendras (KVK) and has undertaken operational research projects. KVK impart on-the-farm training to the farmers and unemployed village youth.

Lab to Land Programme

The ICAR has adopted 50,000 farming families of small and marginal farmers and landless agricultural labourers for their economic uplift under the Lab to Land Programme. In this programme efforts are

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made to introduce the relevant technologies that would help in diversification of labour use and introduction of supplementary sources of income in all the fields of animal husbandry, sericulture, acquaculture, apiculture, home crafts, etc., in addition to agriculture. It has now been extended to cover 75,000 new farming families. The programme is being implemented through 142 transfer of technology centres spread all over the country.

The Council has laid special emphasis on research and training programmes for the tribal and backward classes. Three institutes, the Central Agricultural Research Institute for Andaman and Nicobar Islands, ICAR Research Complex for North-Eastern Hills Region and the Indian Lac Research Institute are conducting research exclusively on agricultural problems relating to tribal/backward areas.

Agricultural Scientists Recruitment Board was set up in December 1973 as an independent recruiting agency of the ICAR. The Board is concerned with recruitment to all scientific posts equivalent to class-I and above and technical posts equivalent to senior class-I posts.

The ICAR provides a number of scholarships for the scientists in the field of different disciplines of agriculture. A scheme for the award of 750 scholarships and fellowships at different levels of education was recently introduced under Human Resources Development Programme.

Under the National Agriculture Research Project, 20 universities are receiving assistance. The number of research sub-projects sanctioned for establishing or strengthening regional research stations or for undertaking basic research is now 49.

MEDICAL RESEARCH

The Indian Council of Medical Research (ICMR) initiates, develops and coordinates medical research in the country. It is financed mainly by the Union Government. The ICMR, set up in 1911, maintains, besides a number of semi-permanent units, 18 permanent research institutes and centres. These are : the National Institute of Nutrition, Hyderabad; the National Institute of Virology, Pune; the Tuberculosis Research Centre, Madras; the National Institute for Cholera and Enteric Diseases, Calcutta; the Institute of Pathology, New Delhi; the National Institute of Occupational Health, Ahmadabad; the Institute for Research in Reproduction, Bombay; the Central JALMA (Japanese Leprosy Mission for Asia) Institute for Leprosy, Agra; the Blood Group Reference Centre, Bombay; the Vector Control Research Centre, Pondicherry; the Malaria Research Centre, Delhi; the Institute of Research in Medical Statistics, New Delhi; the Institute of Research in Medical Statistics, Madras; the Laboratory Animal Information Services, Hyderabad; the Food and Drug Toxicology Centre, Hyderabad; the Cytology Research Centre, New Delhi; the Enterovirus Research Centre, Bombay; and the Rajendra Memorial Research Institute of Medical Sciences, Patna. In addition, two Regional Medical Research Centres have also been established—one at Port Blair and the other at Bhubaneswar.

There are two statutory bodies to conduct research in various branches of medical sciences. These are : the All India Institute of Medical Sciences, New Delhi and the Post-Graduate Institute of Medical Education and Research, Chandigarh. There is also an All

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India Institute of Speech and Hearing at Mysore, which has been functioning under the Ministry of Health and Family Welfare since 1965. Clinical facilities are available at all these institutes.

The Directorate General of Health Services supports selected research projects in relation to *kala-azar*, plague, etc. Under the "grants to other research schemes", financial assistance is provided to various bodies for conducting research. At present two projects, Kalazar Unit, Patna, and the Plague Surveillance Unit, Bangalore, are functioning.

Study of Diseases and Treatment

Some of the institutions working in the field of various specialized medicines are : the Indian Cancer Research Centre, Bombay; Cancer Institute, Madras; the Chittaranjan Cancer Research Centre, Calcutta; the Rotary Cancer Hospital at the All India Institute of Medical Sciences, New Delhi; the National Tuberculosis Institute, Bangalore; the Vallabhbhai Patel Chest Institute, Delhi; Central Leprosy Teaching and Research Institute, Chingleput (trains medical and paramedical personnel and treats leprosy patients and is recognised as WHO Regional Centre); the National Institute of Communicable Diseases, Delhi; the All India Institute of Hygiene and Public Health, Calcutta; the Rural Health Unit and Training Centre, Singur; the Urban Health Centre, Chetla and the Central Drugs Laboratory, Calcutta (maintains a herbarium and gives technical advice to drug manufacturers).

Micro-biology

The Central Research Institute, Kasauli is the Central laboratory for all biological products. It has been entrusted with the responsibility of evolving national standards and distributing both the national and international standards for standardising biological products manufactured in the country. The Institute functions as the national centre for giving expert advice both to the Government and public on rabies, yellow fever, snake-bite, cholera, typhoid, whooping cough, tetanus and diphtheria. It carries out both basic and applied research in the prevention of communicable diseases. The Institute is the largest and comprehensive producer of biological products in the country. Besides carrying out diagnostic tests, it provides antigens, anti-sera and technical advice regarding diagnostic procedures for the public health and hospital laboratories. It has started work for the production of Japanese encephalitis vaccines. It conducts courses leading to post-graduate degrees in micro-biology and trains people from institutes in India and abroad, especially from South-East Asia in production and quality control. The Pasteur Institute, Coonoor conducts research in rabies, influenza, other respiratory virus infections, diseases caused by intestinal viruses and bacterial diseases like enteric fevers and syphilis. It is the main centre for research on rabies and influenza in the country. The pilot project for training and production of tissue culture rabies vaccine has been taken up in the Institute. In 1982, the Institute commenced production of DPT, DT and TT vaccines. The King Institute of Preventive Medicine, Guindy, Madras, gives post-graduate training in micro-biology, supplies of prophylactic vaccines, anti-tetanus sera, tetanus toxoid, blood products and intravenous and special solutions of various kinds. It also undertakes public health bacteriological investigations. The Haffkine Institute, Bombay, established in 1896, conducts research in bacteriology, experimental medicine, chemotherapy, pharmacology, pathophysiology, bio-

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chemistry, immunohaematology, immunology and virology related to communicable and other diseases. It also undertakes drugs analysis and biological standardization. It trains scientists for post-graduate degree and provides public health laboratory services by way of diagnosis of diseases and epidemiological investigations. The Haffkine Biopharmaceutical Corporation, Bombay, manufactures some bacterial and viral vaccines, anti-toxins and other biological products including human plasma products.

NON-CONVENTIONAL ENERGY SOURCES

The Department of Non-Conventional Energy Sources was established on 6 September 1982 as a Department in the Ministry of Energy and the following items of business were allocated to it : (a) research and develoment of biogas and programme relating to biogas units (work transferred from the Department of Agriculture and Cooperation), and (b) Commission for Additional Sources of Energy (CASE) (work transferred from the Department of Science and Technology).

The Commission for Additional Sources of Energy (CASE) was set up on 12 March 1981 with functions such as : (a) formulating policies and programmes for development of new and renewable sources of energy; (b) coordinating and intensifying research and development activities in new and renewable sources of energy; and (c) ensuring implementation of Government's policies in regard to all matters concerning new and renewable sources of energy.

While the overall resonsibility for formulating the policies and programmes will rest with CASE, the Department of Non-Conventional Energy Sources will make arrangements for their implementation. Four regional offices are being set up in the country. In order to execute the programmes, the Department has also sought cooperation from other Government departments, various national and state level agencies and undertakings. Several state governments have identified mechanisms to plan and coordinate these programmes in their states. The Department has organised implementation of a wide ranging programme of extensive field application in regard to family type biogas plants, community type biogas plants as well as programmes of research, development and demonstration in solar energy, wind energy, biomass and chemical sources of energy, etc.

Several ministries and departments such as railways, tourism, works and housing and textiles have been approached by the Department for installation of renewable energy systems. The Railway Board is to take up a pilot programme for the installation of renewable energy system.

Biogas

A national project on biogas development was launched in 1981-82 as a Central sector scheme with an outlay of Rs 50 crore having a physical target of setting up of 4,00,000 biogas plants during the Sixth Plan. The project provides, *inter alia,* subsidy to the beneficiaries; core organisational support to state governments and Khadi and Village Industries Commission, cash incentives to village functionaries; turn key fee to corporate bodies/Khadi and Village Industries Commission/ Khadi and Village Industries Board/State Agro-Industries Corporation/voluntary organisation/approved trained private enterprenuers, etc. Also training programmes, namely construction training course for village master masons and technicians; training of trainers; orienta-

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tion programmes for senior state and district level officers and women education programmes are being organised.

Since its creation, the Department has taken a number of steps to accelerate the rate of construction of the family type biogas plants. As a result 57,498 plants were constructed in 1982-83 as against 25,369 constructed in 1981-82. A target of setting up of 75,000 biogas units during 1983-84 has been proposed. Multi model and multi-agency approaches have been adopted for promotion of biogas technology. Efforts are being made to involve a large number of organisation/agencies for popularisation of biogas plants. Loaning facilities for biogas plants are provided by both commercial and cooperative banks.

Solar Energy

India gets a significant level of solar radiation over wide areas for a major part of the year because of its favourable geographical position. Systematic efforts of research and development of solar energy have already been initiated in the country to tap this renewable energy which does not pose any problem to the environment. A simple and more common mode of solar energy utilisation is solar thermal conversion. A large number of applications in the area of solar thermal conversion, particularly, those which require low grade thermal energy, have already been found useful both for urban as well as rural areas. These include cooking, water heating, water desalination, space heating, crop drying, refrigeration, etc. Efforts are being made in a number of research and development organisations in the country to develop economically viable solar collectors for high temperature applications. A countrywide demonstration programme has been taken up by the Government to identify technical, social, economical problems and possible barriers to large scale deployment of solar devices. Efforts are also underway to disseminate the available technology in this field to reduce the pressure on fossil fuels in these sectors. Significant saving in the conventional fuels have been reported through existing field trial/demonstration projects. Under the demonstration and field trial programmes, systems like water heaters, dryers, wood seasoning systems, desalination systems, cold storage, power generating systems, pumps, etc., are being installed. Solar timber kilns have also been developed under the research and development programme and they have proved successful. A number of solar kilns have also been installed. Similarly, solar dryers for farm products like paddy, tobacco, coconut, etc., have also been installed. A multipurpose solar dryer has been commissioned recently at Alathur in Kerala. A solar air heating system for drying yarn and cloth in the National Textile Corporation's Jahangir Textile Mills, Ahmedabad was commissioned in January 1983.

Other important solar thermal devices and systems that have been installed include (i) a 10—ton cold storage at a potato seed farm in Kasiya in Deoria district of Uttar Pradesh; (ii) space heating system at Indo-Tibetan Border Police Staff Quarters, Ladakh; (iii) a water heating system at Tirumala in Andhra Pradesh, and (iv) a tobacco curing unit at Guntur in Andhra Pradesh.

Several models of solar cookers have been developed in the country. These include simple hot box type solar cookers with one reflector, solar ovens with multiple reflectors and solar concentrators. More than 14,000 solar cookers have already been sold all over the country under a programme of subsidy.

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In the area of solar photovoltaics, the technology for the manufacture of solar cells and modules has been developed in the country. A five year programme for pilot scale production of photovoltaic devices and systems for various applications is currently being implemented at the Central Electronics Ltd., with the sponsorship of the Department of Non-Conventional Energy Sources. A large number of solar photovoltaic pumps have been installed in different parts of the country for purposes of demonstration and evaluation. In many cases the pumps are providing water for drinking purposes in rural areas and for micro irrigation. Several lighting systems and Radio and TV sets have also been installed. Photovoltaic power systems have been supplied to the Indian Antarctica expedition as well as for the off-shore platforms of Oil and Natural Gas Commission and to other users such as railways, Border Security Force, Posts and Telegraphs, etc. An intensive programme of research and development in this area is also being supported by the Department.

Wind Energy

Water pumping windmills have been developed which can operate in the fairly low wind speeds that prevail over a greater part of the country. A countrywide field trial/demonstration programme is being implemented to promote public awareness and obtain performance feedback. Various agencies are participating in the programme to take into account regional agro-climatic variations and requirements for pumped water. The wind energy data base of the country is being suitably strengthened to analyse the existing data, to cover those regions for which adequate data is not available, and to make wind measurements for determining the potential for wind electric power generation. Research and development activities are concentrating on improvements in water pumping windmills and the development of small and medium aerogenerators. The pace of industrial production and wider utilisation of water pumping windmills is being accelerated through fiscal incentives, subsidies, other promotional measures and effective public information programme.

Geothermal Energy

A cold storage experimetal plant based on geothermal energy at Manikaran, Kullu district, Himachal Pradesh is in the testing phase. Another project of 5-kw pilot power plant is being initiated at the same place.

ENVIRONMENT

The Department of Environment (DOEn), constituted on 1 November 1980, is the focal point in the administrative structure of the Government for planning, promotion and coordination of environmental programmes. Formulation of environmental policy guidelines in different sectors; environmental appraisal of development projects; promotion of environmental research; eco-development activities; environmental information, education and awareness; and international cooperation in environmental matters are among the major functions of the Department.

The Botanical Survey of India (BSI) and Zoological Survey of India (ZSI) are the major agencies of the Department for investigations on living natural resources. The National Museum of Natural History (NMNH), New Delhi helps in mass education and awareness on environmental issues. The executive responsibilities for enforcement of

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the Acts on prevention and control of water and air pollution as also in respect of the Water Cess Act are carried out by the Central Board for the Prevention and Control of Water Pollution (CBPCWP) which is a statutory authority attached to DOEn from January 1982. The function of wildlife management has also been transferred to the Department from the Ministry of Agriculture.

Guidelines

On policies and priorities, the Department of Environment is advised by the National Committee on Environmental Planning (NCEP) and other expert bodies such as working groups for coordinated research programmes in the Western Ghats, the Himalayan region and the Ganga Basin; the Environment Research Committee and the Indian National Man and the Biosphere Committee.

A study was commissioned by the Department for indepth examination of the present forestry practices. The report based on the study along with recommendations on an alternate national forest policy have been considered by the NCEP.

The Department recommended setting up departments of environment at the state/union territory level. So far Andhra Pradesh, Assam, Karnataka, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal have set up Departments of Environment.

Environmental Appraisal

The Department appraises development projects in various sectors such as industry, energy (hydel and thermal), irrigation and mining. Environmental safeguards to be implemented during construction and operation of such facilities are recommended. In some cases, alternative sites are suggested keeping in view environmental imperatives. To ensure compliance with environmental safeguards in respect of some important projects, the Department constitutes monitoring committees.

Research and Development

Thirty-seven new projects were approved during 1982-83 under the environmental and ecological research programme. These include three major projects *viz.* : an all India coordinated project on heavy metals; a multi-disciplinary project on microbial degradation of industrial wastes and a project on studies of environmental aspects relating to the Beas-Sutlej link.

A programme for coordinated research projects in the Himalayan region, Western Ghats and the Ganga Basin has been launched to promote eco-development research. The programme involves educational institutions, government agencies and also the non-governmental organisations.

As part of its programme to create a strong research base and training support, the Department has taken steps to set up a number of 'centres of excellence'. One such centre for ecological research and training with particular reference to the problems of the Western Ghats region has been set up at the Indian Institute of Science, Bangalore. In addition, there are proposals relating to establishment of an Institute for Environmental Management and centres for research studies on Genetic Toxicology and Ornithology. Also, the Department is in the process of setting up of an Institute on Himalayan Environment and Development.

Eco-Development Programme

In order to demonstrate methodologies for restoration of environmentally degraded areas, create general environmental awareness and involve

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public participation in the solution of environmental problems, the Department carried out a number of projects under its eco-development programme. During 1982-83, over 60,000 students from various parts of the country participated in the camps organised for carrying out eco-developmental activities. Several voluntary agencies and a task force of ex-service personnel were also mobilised for work on soil conservation, afforestation, cleaning up water bodies, etc.

Environmental Information

The Environmental Information System (ENVIS) which is a computerised facility with distributed information centres became operational during 1982. The system aims at the collection, storage, quick retrieval and wide dissemination of environment related information/data of use to planners, academics, the media, etc. Work on the computerised Directory of Indian Environmentalists has been completed.

The Department has been arranging programmes for spread of environmental awareness with major focus on the World Environment Day (5 June). An all India essay competition in all national languages for school students drew over 1,200 entries. An exhibition of posters on the theme 'Ecology in Action' was organised in different colleges and schools. A major initiative towards promotion of environmental awareness was through organisation of the National Environment Congress, the first session of which was held in December 1982.

Pollution Control

Formulation of guidelines for introduction of the sewage regulations in class-I cities, intensive surveys of polluting industries for assessment of their pollution potential and possible abatement measures and a nation wide programme for enforcement of minimal national standards in respect of selected industries were among the important activities during 1982 in regard to water pollution control.

In respect of the Air (Prevention and Control of Pollution) Act, 1981, the rules under sections 53 and 54 of the Act were formulated. Standards for ambient air quality were laid down. Guidelines regarding technical and administrative requirements for enforcement of the Act were prepared. Work on preparation of a comprehensive emission inventory in and around Agra-Mathura Region was completed and the monitoring of air quality in the capital city of Delhi was continued with added facilities.

Zoological Survey of India

The Zoological Survey of India (ZSI) carries out studies in diverse fields of animal taxonomy and investigations related to agriculture forestry, fisheries and public health and hygiene. Particular emphasis is given to studies on ecological aspects. Faunistic surveys are conducted in important ecosystems which include 54 estuarine and coastal areas, mangroves, hilly tracts of Western Ghats and selected high altitude areas in the Himalayan region. During 1982, 285 projects were taken up which resulted in the publication of 180 papers. Over 28,000 identified specimens pertaining to 2,978 species were collected through 64 field surveys in various parts of the country. These included types of 203 species new to science and 150 species new to the national zoological collections.

Detailed investigations were conducted in the areas proposed for designation as biosphere reserves. These included Nanda Devi National Park in Uttar Pradesh, Namdapha Wildlife Sanctuary in Arunachal Pradesh and Neora Valley in West Bengal. Special studies were made in respect of some of the endangered and rare species

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such as the Indian wild ass, the great Indian bustard and desert cat in the arid zones and Phayre's leaf monkeys which are found only in Tripura. A comprehensive porgramme on environmental monitoring was launched as a new scheme. A scheme was also prepared for setting up a marine aquarium-cum-research centre at Digha, West Bengal.

Botanical Survey of India

The Botanical Survey of India (BSI) launched a new scheme in collaboration with the universities for intensive studies on floristic resources in 100 selected districts. In the first phase, studies have been taken up in 50 districts. Surveys of medicinal plants resulted in collection of about 250 specimens. Under the All India Coordinated Research Project on Ethno-biology, studies were conducted on ethno-botanical aspects and information was collected in respect of 70 plants from the tribal areas of Bihar.

For the Convention on International Trade in Endangered Species of Flora and Fauna (CITES), a 10-year review in respect of appendices on flora was prepared. Detailed studies for environmental impact assessment in relation to plant resources in the Silent Valley and Idduki in Kerala, Namdapha in Arunachal Pradesh, Nanda Devi in Uttar Pradesh, and in the Andaman Islands were among the other important activities during the year.

OCEAN DEVELOPMENT

For India, oceanography is relatively a young science. A systematic study of the Indian Ocean started with India's participation in the International Indian Ocean Expedition (1960-65). Earlier to this, interest was shown only on a few aspects of the ocean science by some institutions and universities. In 1966, the National Institute of Oceanography, Panaji came into existence, and began to pursue, with limited resources, multidisciplinary studies of the ocean.

EXCLUSIVE ECONOMIC ZONE

The declaration of 320 km Exclusive Economic Zone added new dimensions to the developmental programme of the oceans. Government created a new Department of Ocean Development (DOD) in July 1981 directly under the Prime Minister. From March 1982 it became a separate Department under a Minister of State.

The Department intends to focus its attention on the following seven areas of activity under different groups, namely : (i) living resources; (ii) non-living resources; (iii) ship management; (iv) manpower planning; (v) inter-national collaboration and Antarctic programmes; (vi) data collection and dissemination and (vii) Law of the Sea.

The Department has also finalized a document entitled Ocean Policy Statement which has been discussed in both the Houses of Parliament.

EXPEDITIONS TO ANTARCTICA

DOD had organised two scientific expeditions to the south Indian Ocean and Antarctica during 1981-82 and 1982-83. The 21-member team of the first Indian expedition landed on Antarctica on 9 January 1982. The team carried out some important work. The second expedition team, consisting of 28-members including 12 scientists drawn

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from eight different organisations was also sent in 1982. The expedition landed on Antarctica on 28 December 1982 and returned to Goa on 21 March 1983, after a stay of 56 days. During the stay and the voyage to and from Antarctica, significant scientific work was done in the disciplines of geology, glaciology, meteorology, marine biology, rodiophysics, geomagnetism, geophysics, oceanography, bacteriology, physiology and accoustics. The expedition located a site for the permanent Indian station to be set up later. During the expedition two prefabricated shelters designed by Central Building Research Institute, Roorkee, were erected for trial purposes, and these were left behind.

Another important development in the ocean sector has been the recognition of the country as a "Pioneer Investor" by the Third UN Conference on the Law of the Sea. So far India is the only developing country recognised as a Pioneer Investor and has, thus, joined a select group of countries which are entitled to priority in claims for deep sea mining. After an extensive survey in the Indian Ocean using three ships a suitable mine site has been identified which will be registered with the Preparatory Commission.

A highly sophisticated advanced oceanographic research vessel—*Sagar Kanya*—constructed in a West German shipyard has been taken over by the Department. With its use, the capabilities in the field of ocean research will be enhanced.

DEFENCE RESEARCH

The Defence Research and Development Organisation (DRDO) was established in 1958. It has since undergone a phased programme of build up and has established necessary infrastructure and expertise in various fields of defence science and technology in a wide network of establishments/laboratories. The principal responsibilities of DRDO relate to the design and development of new and sophisticated weapons and equipment based on the operational requirements projected by the Services, to provide help in their indigenous production and to render scientific advice to the three Services as needed.

DEPARTMENTAL RESEARCH

A number of other Government departments are responsible for certain branches of research. Some of them are :

Geological Survey of India

The Geological Survey of India (GSI) with headquarters at Calcutta was established in 1851, largely for prospecting coal in the eastern India. The work was diversified with time and was intensified after Independence to cater the growing need of industrialisation. Now the GSI is the principal agency entrusted with all the geological activities in the country. As per the charter of GSI, formulated in 1973, the Department is responsible for the preparation of the geological, geochemical and geophysical maps (ground and airborne) of the country including the off shore areas; for the exploration and assessment of mineral resources in the country; for conducting all studies pertaining to the geotechnical problems for rendering expert technical advice in connection with different engineering projects, and for carrying out environmental studies connected with the mining and urban development, land use, desert control, river and forest usage, etc. The Department is also carrying out research, both fundamental and applied in all the branches of earth sciences e.g. in the field of

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mineralogy, geochronology, stratigraphy, palaeontology, photogeology and remote sensing, geochemistry, analytical chemistry and geophysics. It also carries out special investigations on geothermal, glaciology and deep geology. The results of the various activities of the Department and various earth science data are collected, collated, processed, stored, maintained and disseminated through Information Processing Units, data centres and through publications and map productions. Training programme for developing the scientific manpower resources have been given a high priority in the Department and the training and logistic assistance are extended to the personnel of the geological streams from the Department, other Indian organisations and the member-countries of the ESCAP in the Training Institute.

The systematic geological mapping of the country and the continental shelf is the basis to all other functions of the activity of the Department. The peninsular area, which is the main store house of mineral resources, has attracted the greatest attention. The mapping of the extra peninsular regions is being undertaken on expedition basis. During 1981-82, (October 1981 to September 1982) GSI carried out systematic mapping around 87,425 sq km of hard rock terrain and 23,705 sq km of Quaternary formations in different parts of the country. For mineral exploration, 1,38,612 metre of drilling was carried out and about 5,541 sq km of large scale mapping and 104 sq km of detailed mapping were done to delineate the potential mineralised zones. The Airborne Mineral Surveys and Exploration (AMSE) Wing of the Department in collaboration with National Remote Sensing Agency (NRSA) undertook aeromagnetic surveys over parts of Cuddapah basin involving 26,060 line km in parts of Kerala-Karnataka-Tamil Nadu involving 10,500 km. The agencies with which GSI is collaborating includes Mineral Exploration Corporation, Bharat Gold Mines Ltd., NRSA, National Institute of Oceanography, Directorate of Mines and Geology, and a number of other national and international agencies.

Research has been continued in different branches of the earth science. Many of the research activities are undertaken in collaboration with various universities and research centres in the country and abroad sponsored by the Department of Science and Technology. About 20 projects in the realm of stratigraphy, metallogency, genesis of ore deposits, remote sensing and mineral exploration have been taken up under International Geological Correlation Programme (IGCP). In the field of marine geology, the multidisciplinary collaborative programme with the National Institute of Oceanography for preparation of surficial geological map of the continental shelf has been carried out. Special investigations have been initiated in the field of glaciology, geothermal and deep geology. The results of the various activities carried out by 131 Directorates under six Regional Offices and three Specialised Wings of the Department are collected, collated and disseminated through a number of maps and publications.

Meteorology

The India Meteorological Department (IMD), organised on an all India basis in 1875, is the national agency for providing service in the field of meteorology. Meteorological data are collected from over fourteen hundred observatories of different types and processed by the Department. The Department, alongwith the Indian Institute of Tropical Meteorology (IITM), Pune, conducts fundamental and

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applied research in different fields of meteorology, weather forecasting, meteorological instrumentation, radar meteorology, seismology, agricultural meteorology, hydrometeorology, satellite meteorology and air pollution. The IITM has also been conducting cloud seeding experiments for producing rain artificially. Meteorological research is also conducted at some universities and institutes, notably, the Andhra University, the Banaras Hindu University and the Cochin University and the Indian Institute of Technology, New Delhi and Kanpur, and the Indian Institute of Sciences, Bangalore.

The Indian Institute of Astrophysics (IIA), Bangalore, the Indian Institute of Geomagnetism (IIG), Bombay, and the IITM, Pune, which were formerly a part of IMD, have been functioning as autonomous institutes since 1971. The IIA conducts research in solar and stellar physics, radio astronomy, cosmic radiation, etc. The IIG records magnetic observations and conducts research in geomagnetism.

The IMD will be operating the INSAT meteorological application programme. INSAT is a multi-purpose satellite for utilization in telecommunications, direct television broadcasting and meteorology. INSAT-1B will provide continuous surveillance of weather over about a third of the earth's surface comprising of India, the Indian Ocean and the surrounding land and sea areas, by taking half-hourly pictures of cloud formations over these areas. The satellite will also receive weather information from a large number of inaccessible locations for which purpose suitable data collection platforms are set up. It will be useful for broadcasting warnings of disastrous meteorological events, like tropical cyclones, directly to likely to be affected areas. The implementation of the meteorological components of INSAT programme will be a big step forward towards improvement in weather warnings and forecasts and will put India in the company of few advanced countries operating weather satellites.

Telecommunications

In its endeavour to keep pace with modern technological growth in the field of electronics and communications the world over, the Posts and Telegraphs Department had set up in 1956 a Telecommunication Research Centre (TRC) at New Delhi. The Centre is engaged primarily with the introduction of the technology and up-dating and improving the existing technology and equipment in the P and T network. It provides guidance to the planning and operational branches of the P and T Department.

TRC has developed designs for a number of systems both of the transmission and switching areas and most of these continue to be under production by the state-owned Indian Telephone Industries, Hindustan Teleprinters and Hindustan Cables Ltd. Of late TRC has been encouraging manufacturing agencies like Bharat Electronics Ltd., and the state sector units like Gujarat Communications Electronics Ltd., to manufacture communication equipment designed totally by the TRC or by the TRC in collaboration with the manufacturers. TRC has contributed in developing full capability to manufacture power equipment for the communication systems in the private sector.

At present, TRC is working in the areas of optical fibre communication equipment, digital systems on media like coaxial and microwave; data modems and electronic exchange systems for various

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uses like local telephone systems, trunk telephone system, tandem-exchanges, telex, etc.

Broadcasting

The research department of All India Radio is an in house research organisation catering mainly to the needs of AIR and Doordarshan networks in maintaining, planning and in technical advancement of the desired services. The activities of the department are broadly in four sections *viz.* frequency planning and propagation, acoustics and audio engineering, research and development on equipment and prototype cum production unit.

The propagation section deals with the problems of radiowave propagation from low frequency to VHF/UHF including satellite broadcasting and also planning of frequency schedule of internal and external services of AIR. The International Monitoring and Receiving Centre, Todapur, attached to the department serves the purpose of field research centre and supplements practical data needed for propagation studies and frequency planning of AIR Services. The department has a well equipped acoustics laboratory for conducting measurements on various audio equipment, absorption properties of acoustic materials and noise insulation and various broadcast studio parameters.

The research and development section works on the development of various equipments needed for the networks which are based on new concepts, modifications of the existing equipment or indigenous development encouraging import substitution. The latest technology is deployed as far as possible in the design of the equipment in different fields. Main fields of work are TV equipment (including colour TV), digital/analogue broadcast equipment, transmitting and receiving equipment, broadcast antenna, etc.

The prototype and production unit undertakes production of some specialised types of equipment developed by the research and development unit not available off-the-shelf and required in limited quantities.

Anthropological Survey of India

The Anthropological Survey of India is an independent unit under the administrative control of the Department of Education, Government of India. It has seven regional offices and one sub-regional office located at different parts of the country with headquarters at Calcutta. The Survey conducts researches to record and understand the bio-cultural diversities of Indian population and to serve as information bank for national planning and development. It preserves and studies the ancient skeletal remains in the context of bio-cultural history of Indian population. The Survey also carries out field and laboratory based investigations among the Indian population with emphasis on tribes and weaker sections on the problems of contemporary relevance.

Hydraulic and Power Research

The Central Water and Power Research Station at Khadakvasala near Pune (estd. in 1916) the premier hydraulic research institution in India, is recognised as the regional laboratory of the United Nations Economic and Social Commission for Asia and Pacific (ESCAP) in the area of waterways and water-borne transport.

The Central Soil and Materials Research Station (CSMRS) New Delhi was set up in 1954 for conducting basic and applied research and provides advice in the field of geo-mechanics and construction materials. The research station also renders consultancy

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services. The CSMRS is now working as an attached office of the Ministry of Irrigation.

The National Institute of Hydrology, Roorkee was set up in 1978 as an autonomous society under the Ministry of Irrigation. It is a premier national research organisation entrusted with carrying out systematic scientific research activities in basic, theoretical and applied hydrology.

The Central Board of Irrigation and Power works for the promotion and coordination of research work in the field of irrigation and power engineering and dissemination of knowledge gained through researches.

Railways

The Research, Designs and Standards Organisation (RDSO), under the Ministry of Railways was created in 1957 by merging the Central Standards Office (CSO) and the Railways Testing and Research Centre (RTRC), Lucknow. The RDSO has now grown up into a fully equipped research organisation of the Indian railways having experts from all the disciplines of the railways.

Fibre Technology

The cooperative research associations in the textiles sector constitute an important segment of activities relating to research and development in the fibre technology. They are : the Ahmadabad Textile Industries Research Association, Ahmedabad (estd. 1949); the Bombay Textile Research Association, Bombay (ested. 1954); the South India Textile Research Association, Coimbatore (estd. 1951); the Silk and Art Silk Mills Research Association, Bombay (estd. 1950); the Indian Jute Industries Research Association, Calcutta (registered in 1966); the Wool Research Association, Bombay (estd. 1963); the Northern India Textile Research Association, Ghaziabad (estd. 1974); and the Man-made Textile Research Association, Surat (recognised as an independent body in 1980-81).

These associations are working for a closer purposive relationship between the user industry and the research associations, so that the determination of priorities for research programmes reflects the needs and viewpoints of the users and the research product is more cost effective and result oriented.

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8 HEALTH

The Constitution of India lays down that "the State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties". To give effect to this directive, health has been given due priority.

Public health is primarily the responsibility of the state governments. The Central Government, however, guides, sponsors and supports major schemes for improving the health of the people. The Ministry of Health and Family Welfare coordinates the work of the state governments. The Central Council of Health advises the Ministry of Health and Family Welfare on its policies and programmes.

OBJECTIVES

The primary objective in the health sector during the Sixth Plan is to provide better primary health care and medical care services to rural areas, tribal areas and poor people, with the underlying philosophy that "the needs of many people should prevail over those of a few". The driving force behind the health planning is the commitment of the nation to achieve the goal of "Health for all by 2000 AD". On 14 January 1982, the Prime Minister announced the Revised 20-Point programme, which pinpoints special thrust on improving the health status of the people. According to the programme, it is proposed to promote family planning on a voluntary basis as a people's movement, substantially augment universal primary health facilities and control leprosy, tuberculosis and blindness, accelerate programme of welfare for women and children and nutrition programme for pregnant women, nursing mothers and children in tribal, hilly and backward areas.

PHYSICAL TARGETS AND ACHIEVEMENTS

Planned development of over three decades has resulted in vastly improved health facilities. The number of doctors and hospital beds have increased by more than two and a half times and that of nurses by more than six times. The number of medical colleges has increased from 30 before the laying of the First Plan in 1950-51 to 106 at present. In rural areas, there are 5,739 primary health centres and 59,511 sub-centres at present, whereas none existed before 1951. Malaria, tuberculosis and cholera, which used to take a heavy toll of

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life have been controlled to varying degrees. No case of plague has been reported in the country since 1967. Smallpox, which was a dreaded disease, has been eradicated. The general death rate has come down from 27.4 per thousand in 1949-50 to an estimated 12.5 per thousand in 1981 and life expectancy at birth has increased from 32 in 1941-50 to 52 years in 1976-81. The infant mortality rate has come down from 135 in 1973 to 125 in 1979.

To check the rate of growth of population, the family welfare programme was launched in 1952 as a national programme. The programme, which witnessed some ups and downs, is now well-poised to become a people's movement with the adoption of a new policy approved in 1980, and subsequent achievement of a national consensus. The population of India as per 1981 Census stood at 68.52 crore with a decadal (1971–81) growth of 25 per cent which was marginally more than the 1961-71 growth of 24.80 per cent. The goal is to reach the birth rate of 21 and death rate of 9 per thousand population by 2000 AD.

The revised minimum needs programme, alongwith the training of multi-purpose health workers and a more vigorous pursuit of the programme to eradicate or control communicable diseases form the core of health care. The backward and tribal areas are now receiving preference in the implementation of the health programmes.

A number of training centres for different categories of health workers, *i.e.* nurses, sanitary inspectors, para-medical workers, non-medical supervisors, physiotherapists, etc., exist now. The plan of action on the report of the "Group on Medical Education and Support Manpower" for a three-tier reconstruction of entire health core system has been worked out. The scheme of involvement of community level workers, *i.e.*, teachers, post masters and *gram-sevaks,* after a short training for delivery of sevaks as a package deal is being implemented. The pattern of investment in different plan periods is given in table 8.1.

TABLE 8·1
PATTERN OF INVESTMENT

(Rs in crores)

Plan Period	Total Plan investment/ outlay	Plan investment on Health	Investment in Health as percentage of total
First Plan (1951-56)	1,960·00	65·20	3·30
Second Plan (1956-61)	4,672·00	140·80	3·00
Third Plan (1961-66)	8,576·50	225·90	2·60
Annual Plans (1966-69)	6,625·40	140·20	2·10
Fourth Plan (1969-74)	15,778·80	335·50	2·10
Fifth Plan (1974-79) outlay	39,322·00	532·70 (1974-78)	1·40
Annual Plan (1978-79)	11,650·00	281·53	2·42
Annual Plan (1979-80)	12,601·00	275·45	2·19
Sixth Plan (1980-85) outlay	97,500·00	1,821·10	1·87
Annual Plan (1980-81)	14,593·00	316·80	2·16
Annual Plan (1981-82)	17,479·00	356·60	2·00
Annual Plan (1982-83)	21,081·00	392·44	1·86
Annual Plan (1983-84)	25,548·00	471·46	1·84

ERADICATION OF COMMUNICABLE DISEASES

Efforts are being made under the Revised 20-Point Programme to control a number of communicable diseases like malaria, leprosy, TB and filaria. To achieve the objectives some important national

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programmes under operation are : the National Malaria Eradication Programme, National Leprosy Control Programme and National Filaria Control Programme, besides those for the control of TB, trachoma, cholera, diarroheal diseases, goitre and sexually transmitted diseases. In order to achieve a significant reduction in the incidence of blindness, the Ministry of Health and Family Welfare has launched a National Programme for Control of Blindness.

Malaria

Malaria took a toll of 7.5 lakh lives in the pre-Independence period. A Malaria Control Programme was, therefore, launched in 1953. In 1958, it was converted into the National Malaria Eradication Programme. It succeeded in reducing the incidence from 7.5 crore in the pre-Independence period to only one lakh in 1965. Further, there were no deaths due to malaria in 1965. But the situation thereafter deteriorated year after year as the malarial parasite developed resistance to drugs and insecticides. The incidence of malaria increased from 1.48 lakh in 1966 to 64.7 lakh in 1976. The Government introduced a modified plan of operation from 1977 to tackle the situation effectively. There were only 20.82 lakh cases of malaria in 1982.

Training of personnel in methods of malaria eradication is imparted at the National Institute of Communicable Diseases, Delhi, and the regional offices of Health and Family Welfare at Bangalore, Bhubaneswar, Hyderabad, Lucknow, Shillong and Vododara. The Indian Council of Medical Research is working on malaria in the field and in the laboratory.

Smallpox

Smallpox was another great killer before 1947. The National Smallpox Eradication Programme was launched in 1962 with emphasis on intensive primary vaccination campaign and revaccination of vulnerable group of population. As a result, the incidence of smallpox was brought down to zero in July 1975. Surveillance activities were, however, continued. The country was declared to have eradicated small pox by the International Assessment Commission on 23 April 1977. Now it is heartening to note that the whole world has been declared free from smallpox.

Filaria

The National Filaria Control Programme has been in operation since 1955. It is estimated that 30.4 crore people are exposed to the risk of filariasis. One and a half crores manifest the disease and 1.8 crore have the filarial parasites in their blood.

Activities under the programme are at present confined only to antilarval operations in urban areas where 173 filaria control units provide protection to 2.4 crore persons. Eighty-eight filaria clinics are also functioning. Besides, 12 headquarter bureaux are also functioning at the state level. So far, only 220 out of 295 districts in the endemic states have been surveyed. Filaria control work is in progress in 22 districts that have not been surveyed. Efforts are being made to establish more units, especially in Maharashtra. Three field level research units are carrying out surveys in rural areas. During the Fifth Plan, 26 survey units were set up for delimitation of the problem in the remaining unsurveyed districts.

Training in filariology is given at the three Regional Filaria Training and Research Centres at Calicut (Kerala), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

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Leprosy

The National Leprosy Control Programme has been operating since 1955. Out of the total population of 68.52 crore, the number of people exposed to risk of leprosy is about 40 crore, of which 34.51 crore have been covered so far. The estimated leprosy cases are about 32.5 lakh, based on 1971 Census, out of which about 8 lakh are infectious. Under the National Leprosy Control Programme 28.95 lakh cases had been recorded till March 1983 excluding 1.93 lakh cases discharged as disease arrested or cured during 1982-83. Out of these 26.86 lakh cases are under regular follow up treatment through a widespread network of leprosy control clinics, leprosy homes and hospitals. The methodology followed is early detection, regular treatment supported by health education, dose supervision and welfare of patients. The budget for leprosy control activities has been increased from Rs 10 crore in 1982-83 to Rs 11 crore in 1983-84.

So far 389 leprosy control units, 6,960 survey, education and training (SET) centres, 607 Urban leprosy centres and 243 temporary hospitalisation wards of 20 beds each and 231 leprosy homes and hospitals having 33,860 beds have been established in the country. At present, 74 reconstructive surgery units are also functioning for prevention and corrections of deformities of hands, feet and face of the patients.

Training of medical and non-medical personnel is imparted through 42 (32 government and 10 voluntary) training centres established under the programme. Researches on leprosy are being conducted at the Central Leprosy Training and Research Institute, Chingleput, Tamil Nadu; Scheffillin Leprosy Research and Training Centre, Karigiri; Central JALMA Institute for Leprosy, Agra; Medical Research Centre, Bombay; School of Tropical Medicine, Calcutta and at many other Centres.

Multidrug regimen project in the form of a special campaign has been continuing in Wardha district of Maharashtra and Purulia district of West Bengal. The project has also been started in the districts of North Arcot in Tamil Nadu; Ganjam in Orissa; Srikakulam and Vizianagaram in Andhra Pradesh. The objective of this project is to detect all infectious cases in the districts and treat them with combination of antileprotic drugs namely Dapsone, Refampicin and Clofazimine, apropos to render them non-infectious within a short time so that risk of development of drug resistance germs in the patients and the chances of transmission of diseases in the community is effectively prevented. In order to facilitate rehabilitation of socio-economically dislocated and physically handicapped leprosy patients, leprosy rehabilitation promotion units are being established under the programme.

The existing National Leprosy Control Programme has been redesignated as National Leprosy Eradication Programme. A National Leprosy Eradication Commission has been set up for the guidance and survelliance of the programme. A National Leprosy Eradication Board has also been set up as executive body of the Commission. A Bill has been introduced in Parliament to repeal the Lepers Act. 1898 to create a favourable climate for removal of the age-old social stigma of leprosy and to obtain cooperation of the patients and the public. New schemes for better treatment and welfare of patients and for augmentation of training and supervision of work and research activities in this field are being introduced. Six regional training and research-cum-referral institutes are to be established during the Sixth

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Plan. One of these is already in operation. To take care of the poor leprosy patients a scheme 'food for cure' has been drawn up. Newer leprosy units, centres and institutes are being established under the programme both in government and voluntary sectors. Many international voluntary organisations and bilateral agencies have been encouraged to participate in the eradication programme. The money allocated for 1983-84 is Rs 11 crore, which is one crore rupees more than 1982-83.

Tuberculosis

Nearly 80 out of every one lakh people die of TB every year in the country. Approximately one crore people are suffering from radiologically active TB, nearly a quarter of them being infectious. Over 600 clinics have been set up, of which 353 have been upgraded as district TB centres to undertake a district-wise TB control programme. Nearly 44,500 TB beds are available for in-patient treatment. Primary emphasis is now on domiciliary treatment. Seventeen centres provide training facilities to the medical and para-medical personnel in different parts of the country. The National TB Institute, Bangalore, conducts re-orientation courses for medical and para-medical personnel from different states for implementation of the district TB programme. The Institute also carries out operational research in the field of tuberculosis. A high priority has been accorded for expansion of TB control activities with its inclusion in the Revised 20-Point Programme. The target of detection of 10 lakh new TB cases fixed for 1982-83 has been achieved.

Voluntary TB organisations including the Tuberculosis Association of India (the largest organisation), also assist in combating the disease. There are more than 200 state and district TB associations all over the country.

Sexually Transmitted Diseases Control Programme

In order to combat the dreaded sexually transmitted diseases (STD) at a war-footing, the Government of India have established more than 240 STD clinics throughout the country to provide therapeutic services to the patients suffering from these diseases. Benzathine Penicillin has been supplied free of cost to all the clinics for providing treatment to the patients. In order to provide training facilities to the medical and para-medical personnel in the discipline of venereology, the Government have established two training centres—the Institute for the Study of STD at Madras Medical College, Madras, and STD Training and Demonstration Centre at Safdarjang Hospital, New Delhi.

Government have also set up a VDRL Antigen Production Unit at Calcutta for the production and supply of VDRL antigen to all the clinics/hospitals in the country. A Central STD Reference Laboratory has been established at the Institute of STD, Madras, for providing training facilities to the laboratory technician. A survey-cum-mobile STD unit has also been organised at the National Institute of Communicable Diseases, Delhi, to go into the epidemiological aspects of the disease and also to provide therapeutic services to the patients.

The STD Control Programme during the Sixth Plan has been included as a purely central sector scheme. The scheme envisages the establishment of Regional Teaching and Training Centres at Bombay, Calcutta, Delhi and Hyderabad for imparting inservice training facilities to the medical and para-medical personnel working

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in the district/civil hospital, primary health centres, MCH Centres in the field of STD.

Control of Blindness

The National Programme for the Control of Blindness was launched in 1975 and incorporates the earlier Trachoma Control Programme started in 1968. About 450 lakh people are suffering from visual impairment and over 90 lakh are blind, including about 60 lakh who can be cured by operations. The National Programme for Control of Blindness aims at educating people on eye care, providing ophthalmic services to rural areas through mobile ophthalmic units and establishing a permanent infrastructure for eye health services in the existing public health delivery system.

Forty-five fully equipped mobile units are functioning in different parts of the country to : (1) conduct eye operation camps; (ii) educate the people on eye health care; and (iii) conduct survey of causes and incidence of blindness. Each mobile unit is to carry out from 1,500 to 2,000 intra-ocular operations per year. Medical college-hospitals and district hospitals in the states are equipped to improve the quality of treatment, research and training in ophthalmology. The ophthalmology departments of 30 medical colleges have been developed to become community ophthalmic centres. Four institutes of ophthalmology have achieved the status of regional institutes. Apart from the mobile units, 245 district hospitals have been upgraded so as to start an eye unit in each district. So far 1,590 primary health centres have been provided with ophthalmic equipment. Ophthalmic assistants are being posted in these centres. The existing 4 institutes of ophthalmology and Dr. Rajendra Prasad Centre of Ophthalmic Sciences, New Delhi are being assisted for manpower development, research and special referral services. Already 30 centres have started training course for ophthalmic assistants.

Eye ointment tubes are being distributed to the states to control trachoma and associated infections.

Government gives financial assistance to the maximum of Rs. 12,000 per eye camp to voluntary agencies and Rs 60 for every intra-ocular operation.

Cancer

At present 110 general hospitals, including medical college hospitals, offer facilities for cancer treatment by surgery, radiotherapy and chemotherapy. Research on cancer is being conducted at 16 hospitals and specialised institutes all over the counry. The Indian Council of Medical Research has initiated collaborative studies on oral, cervical and breast cancer at various centres besides establishing Population Based Cancer Registries at Bombay, Madras and Bangalore and Hospital Tumour Registries at Chandigarh, Trivandrum and Dibrugarh. During the Sixth Plan, the Government of India recognised the existing Regional Cancer Centres at Ahmedabad, Bangalore, Cuttack, Gwalior, Guwahati and Trivandrum, as regional centres for cancer research and treatment in addition to the existing Regional Cancer Centres at Calcutta, Madras, Delhi and Bombay. On recommendations of the Standing Committee on Teletherapy Units, the Central Government sanctioned assistance to the tune of Rs 10 lakh each to Tamil Nadu, Gujarat and Punjab for installation of Cobalt Therapy Units. Central assistance of one lakh rupees was also accorded in 1982-83 to Maharashtra for

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setting up of early cancer detection centres at Nagpur and Aurangabad.

Goitre

In India, endemic goitre is highly prevalent in the entire sub-Himalayan range covering portions of Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal and all the north-eastern states. It is also found to be endemic in some districts of Maharashtra and two districts of Madhya Pradesh. The average prevalence rate in these areas is 30 per cent ranging from 10 to 60 per cent.

The National Goitre Control Programme was launched towards the end of the Second Plan to tackle the problem of goitre, which is epidemiologically associated with mental retardation, retardation of physical growth, especially in young children and adolescents, deafness, cretinism and thyroid cancer at a later stage. The core of the programme is : (i) survey of goitre to identify the endemic goitre areas and (ii) production and supply of iodised salt to the endemic areas. Twelve plants for the iodisation of salt had been set up by 1980. After five years of continuous supply of iodised salt to the endemic areas it is planned to have a resurvey in these areas to assess the impact of the programme.

HOSPITALS AND DISPENSARIES

Medical services are primarily provided by the Central and state governments. Certain charitable voluntary and private institutions also provide medical relief. The Central Government Health Scheme (CGHS) is at present in operation in 15 big cities covering about 27 lakh beneficiaries. The district and sub-divisional hospitals are being further developed by removing deficiencies in referral services. The number of hospital beds (both government and private) was 4.7 lakh in 1980 as compared to 1.13 lakh in 1951-52. The bed-population ratio is now 0.7 per 1,000 population, which was 0.24 at the commencement of the First Plan. The estimated number of active doctors and nurses at the end of 1978-79 was 1.78 lakh and 1.13 lakh respectively.

Central Government Health Scheme

The Central Government Health Scheme was launched in July 1954 for Central Government employees and their families in Delhi and New Delhi. It now covers Allahabad, Bombay, Calcutta, Kanpur, Madras, Bangalore, Hyderabad, Meerut, Patna, Nagpur, Pune, Jaipur, Ahmedabad and Lucknow. Central Government pensioners and widows of Central Government employees, who are getting family pension, are also eligible for this scheme. The staff and families of certain autonomous and semi-government organisations in Delhi, Members of Parliament and Delhi Police employees and their families are also covered by it. It has also been extended to former Members of Parliament, former Vice-Presidents, Former Governors, former retired Judges of High Courts and the Supreme Court and to defence industrial employees at all stations (except Bombay) where it is in operation. In 14 selected areas in Delhi the scheme has been extended to the public on payment of prescribed charges.

The scheme has been extended to the employees of the Employees State Insurance Corporation, Kanpur, and the employees of Kendriya Vidyalaya Sanghathan stationed in Calcutta, Madras and Bombay. The industrial staff and the work charged staff in the establishments run by various ministries/departments of the Central

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Government are now allowed medical facilities under the scheme from the date of joining the service. The monetary limit of Rs 250 per month for deciding the wholly/mainly dependents of the government servant has now been raised to Rs 350 per month.

In addition to Allopathic dispensaries, Ayurvedic, Unani, Homoeopathic, Siddha dispensaries/Units have also been set up under the scheme to offer a choice between different systems of medicine. At present there are 270 dispensaries and hospitals of different systems and polyclinic functioning under CGHS. Apart from this, 137 government and non-government hospitals have been recognised under CGHS in 15 cities.

Primary Health Centres

The primary health centre forms the base of the integrated structure of medical services in rural areas. On April 1983, 5,970 primary health centres and 64,541 sub-centres were functioning in the country. These primary health centres and sub-centres provides basic medical care to the community through multi-purpose health workers. It is proposed to have a male as well as a female health worker for every 5,000 population in a phased manner.

INDIAN SYSTEMS OF MEDICINE

Indian systems of medicine are very popular among the rural population in many parts of the country. People consult hereditary *vaidyas* and *hakims*, who practise medicine as a family profession. About 2.81 lakh registered practitioners are practising these systems. At present, 13,687 dispensaries and 441 hospitals with 12,865 beds, are functioning in the country.

Under-Graduate Education

There are 98 Ayurvedic, 17 Unani, and one Siddha under-graduate colleges in the country. Out of these, about 54 Ayurvedic and 11 Unani colleges are run by voluntary organisations. A majority of the colleges are, however, affiliated to the respective universities in the states, in which they are established. The Central Government provides partial financial assistance to some of the privately run colleges under these systems of medicine for construction of college buildings, purchase of equipment, etc., up to a maximum of Rs 5 lakh. The scheme has been revised. The revised scheme is also providing financial assistance for non-recurring expenditure to the extent of Rs 1.60 lakh per college run by the voluntary organisations, for the purchase of laboratory equipment for Physiology and Pathology Departments and setting up of book banks. The annual admission capacity for under-graduate education in Ayurveda is 3,751, in Unani medicine 595 and in Siddha 75.

Post-Graduate Education

Besides the National Institute of Ayurveda, Jaipur, and the two full-fledged post-graduate institutions in Ayurveda at the Banaras Hindu University, Varanasi and the Gujarat Ayurveda University, Jamnagar, there are 19 colleges having post-graduate facilities in Ayurveda, 2 in Unani and one in Siddha, which are functioning in the country. The admission capacity for post-graduate courses in Ayurveda is 208, Unani 17 and Siddha 20. All the post-graduate institutions and departments are wholly financed by the Government of India except 3 non-government colleges in Maharashtra. It has been decided to set up a National Institute for Unani Medicine at Bangalore.

The Central Council of Indian Medicine regulates the practice and education of Ayurveda, Unani and Siddha.

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The Government of India have established the Indian Medicine Pharmaceutical Corporation Ltd., a public sector undertaking under the Ministry of Health and Family Welfare to make available efficacious drugs in collaboration with the Kumaon Mandal Vikas Nigam, a public sector undertaking of the Uttar Pradesh Government.

The first part of the Ayurvedic Formulary is available. The National Formulary of Unani Medicine, Part (I), containing 440 formularies, is being printed. The Siddha Formulary, Part (I), is under print. A Pharmacopoeial Laboratory for Indian medicine is functioning at Ghaziabad, Uttar Pradesh.

HOMOEOPATHY

There are 123 institutions imparting training in Homoeopathy, which have been recognised by various state boards and councils including the National Institute of Homoeopathy. Nineteen of these are government institutions. The Homoeopathic Pharmacopoeia Committee has brought out three volumes of the Homoeopathic Pharmacopoeia of India.

Under the Homoeopathic Central Council Act, 1973, a Central Council of Homoeopathy was set up on 8 August 1974. It determines the minimum standards of homoeopathic education and maintain a central register of Homoeopathic practitioners in the country.

There are 118 hospitals with 3,716 beds and 2,142 dispensaries and 1.13 lakh practitioners of Homoeopathy throughout India.

NATURE CURE

The Nature Cure Advisory Committee in the Ministry of Health and Family Welfare is responsible for the development of nature cure. The Central Government gives grants to 24 nature cure research and educational institutes.

RESEARCH

The Central Council for Research in Indian Medicine and Homoeopathy, set up in 1969, was dissolved on 10 January 1979 and four Central Councils on the lines of the Indian Council of Medical Research, have been constituted. They are : (i) Central Council for Research in Ayurveda and Sidhha, (ii) Central Council for Research in Unani Medicine, (iii) Central Council for Research in Homoeopathy and (iv) Central Council for Research in Yoga and Naturopathy. These apex bodies in the concerned systems of medicine are financed by the Central Government.

The Central Council for Research in Ayurveda and Siddha (CCRAS) is associated with wide research activities being carried out in the 29 major institutes and 54 research units, bio-medical research in the field of clinical conditions including therapeutics, service oriented survey and surveillance programme, studies by medico-ethno-botanical survey teams, drug research programme and medico-historical and literary research programme.

To disseminate knowledge through publications/literature, etc., the CCRAS is publishing a monthly newsletter, two quarterly research journals and a half yearly bulletin. More than 30 titles have been published in the form of monographs in English, Hindi and Tamil.

Family welfare research programme has been carried out of the screening of the herbal preparations for working out safe and effective oral contraceptives at clinical as well as chemicopharmacological level. Coded drugs such as Ayush AC-I, Ayush AC-IV, and K & J capsules in addition to *Piplayadi Yoga, Hansprabhavati* and *Vidanga* capsules were further studied under clinical research programme.

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The Central Council for Research in Unani Medicine has one central research institute, four regional research institutes, twelve clinical research units, four literary research units, seven drug standardisation research units, two units for survey of medicinal plants, one central herb garden and museum, one composite drug research scheme, one mobile clinical research unit, one clinico-pharmacological unit and one information centre. Clinical research is conducted at the Central and regional institutes and other clinical research units on vitiligo, leucorrhoea, sinusitis, jaundice, malaria and trachoma apart from other diseases. Thirty three compound formulations and 70 single drugs have been standardised. The survey units have conducted 75 survey tours of different forest areas.

The literary research units edit and translate rare manuscripts. A hand book of common remedies in Unani medicines, already available in Hindi, English and Urdu, has been printed in Tamil and Telugu and is being translated into Arabic, Oriya and Kannada. The Council has brought out 13 publications and publishes a quarterly newsletter also.

The Central Council for Research in Homoeopathy has two central research institutes, two regional research institutes and 25 research units to conduct clinical research, drug research and survey programmes. Useful results have been obtained by the Council in the treatment of bronchial asthama, allergic dermatitis, amoebiasis, tonsilitis sinusitis and arthritis. Six lesser known drugs in homoeopathy have been proved under the drug proving programme and over 30 drugs have been standardised. Anti-fertility surveys are also being conducted. The Council publishes a quarterly bulletin.

The Central Council for Research in Yoga and Naturopathy has been providing financial assistance to four leading yoga research institutes which are conducting research on diseases such as diabetes mellitus, bronchial asthma, hypertension, arthritis and chronic gastro-intestinal disorders. It also gives grants-in-aid to 20 nature cure institutions in the country The Council is entrusted with the task of formulation of curricula for courses in Yoga and Naturopathy. Intensive research work is being carried out in the Central Research Institute of Yoga. The Vishwayatan Yogashram, New Delhi conducts training courses in Yoga and Yogaasana. The Ashram is aided by the Government of India.

CONTROL AND MANUFACTURE OF DRUGS

The Drugs and Cosmetics Act, 1940 as amended from time to time regulates the import, manufacture, sale and distribution of drugs and cosmetics in the country. Under the Act, the import, manufacture and sale of sub-standard, spurious, adulterated or misbranded drugs are prohibited. The Union Government is empowered to check the quality of imported drugs, coordinate the activities of the states, lay down regulatory measures and standards of drugs and grant approval for the import or manufacture of new drugs. The control over the quality of drugs, which are manufactured, sold and distributed in the country is exercised by the state governments. Zonal offices of the Central Drugs Standard Control Organisation functioning at Bombay, Calcutta, Ghaziabad and Madras maintain close liaison with the state organisations for enforcement of the provisions of the Drugs and Cosmetics Act, 1940. The Central Drugs Standard Control Organisation arranges training programmes for personnel concerned with Drugs Standard Control.

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The Central Drugs Laboratory, Calcutta, functions as the testing laboratory for imported drugs as well as analytical quality control of drugs manufactured within the country on behalf of the Centre and state drug control authorities and is the appellate laboratory under the Drugs and Cosmetics Act to test samples of drugs sent to it by courts. The Central India Pharmacopoeia Laboratory, Ghaziabad, tests samples of non-biological drugs and draws up the standards of drugs included in the Indian Pharmacopoeia.

Prices of Drugs

Prices of bulk drug formulations have been under some kind of statutory control since 1962, but effectively from 1970. The Drug (Prices Control) Order 1970 has now been replaced with Drug (Prices Control) Order 1979. As a result of these measures the wholesale price index of drugs and medicines has been kept steady *vis-a-vis* other commodities.

Vaccine Manufacture

The BCG Vaccine Laboratory, Guindy, Madras, is one of the largest vaccine producing laboratories in the world. It supplies biologicals—PPD, Tuberculin and freeze-dried BCG vaccine, free of cost to the states and union territories under a centrally-sponsored scheme. The laboratory is being expanded to double the production of BCG from 3 crore to 6 crore doses.

The Central Research Institute, Kasauli, supplies vaccine for TAB, cholera, rabies, influenza, anti-venom sera and tetanus toxoid. The Haffkine Institute, Bombay manufactures vaccines, anti-toxoins and other biologicals.

There are 14 other institutes manufacturing vaccines. India is self-sufficient in the production of vaccines relating to smallpox, BCG, anti-typhoid, anti-cholera and anti-rabies.

Objectionable Advertisements

The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1955, prohibits the publication of objectionable advertisements relating to sexual stimulants, alleged magic cures for venereal diseases and diseases peculiar to women. The Act, amended in 1963, also prohibits the import and export of objectionable advertisements and authorises the customs and postal authorities to intercept articles suspected to contain objectionable advertisements.

Medical Depots and Factories

The Medical Stores Organisation with six units at Bombay Calcutta, Guwahati, Hyderabad, Karnal and Madras procures and ensures the supply of quality medical stores and equipment to about 16,000 indenting hospitals and dispensaries all over the country at the most economical rates. Most of the clients of the Medical Stores Organisation are small hospitals and dispensaries located in rural or suburban areas. It receives supplies from international agencies and distributes them to the beneficiaries. It also arranges relief supplies to the victims of natural calamities in affected areas.

At the factories of the Organisation at Bombay and Madras, a large number of drugs and dressings are manufactured to meet the requirements of the indenting units. Medical Stores Organisation has been functioning for more than a century now.

HEALTH EDUCATION

The Central Health Education Bureau, set up in 1956, coordinates and promotes health education through various national and state health programmes. The main activities of the Bureau, which has

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six technical divisions, are to interpret the policies and programmes of the Ministry of Health and Family Welfare; to train key health and community welfare workers in health education and research methods; to evolve effective methodology and training; to prepare and distribute sample health education material to states and other agencies; to render technical and other assistance to official and non-official agencies engaged in health education work; to develop health education syllabi for different age groups of school children and teacher training courses at various levels; and to cooperate and collaborate with international agencies in promoting health education activities.

The Bureau publishes four monthly journals—*Swasth Hind* (English), *DGHS Chronicle* (English mimeographed), *Impact* (English mimeographed) and *Arogya Sandesh* (Hindi) as well as quarterly *Swasthya Shiksha Samachar* (Hindi-mimeographed). It organises exhibitions and produces films on health, family welfare and other allied subjects.

The Bureau conducts a diploma course and a certificate course in health education. It also deals with the development of health education bureaux in the states and union territories. So far 20 states and 5 union territories have set up health education bureaux units. Seventy-nine district health education units have also been set up.

MEDICAL EDUCATION, TRAINING AND RESEARCH

To promote medical education, 106 medical colleges, as against 30 in 1950-51, besides 19 dental colleges and 11 other institutions are functioning in the country. Establishment of new medical colleges and expansion of the existing ones have raised the admission capacity from 2,500 in 1950-51 to over 12,500 in 1981-82. The doctor-populaton ratio, which was 1:5,150 in 1968 had improved to 1:3,600 in 1979-80.

The Indian Medical Council functions as a guardian for the maintenance of standards in medical education.

Nurses

Facilities for the training of nurses exist in all major hospitals and in 15 colleges of nursing at Ahmedabad, Bangalore, Bombay, Chandigarh, Hyderabad, Indore, Kanpur, Calcutta, New Delhi, Pune, Trivandrum, Jaipur, Guwahati, Ranchi and Vellore. State governments and non-official organisations also organise various courses including auxiliary nurse midwife/health workers courses. Some of these institutions get Central assistance.

There are 286 nursing schools attached to major hospitals in addition to the 15 colleges of nursing affiliated to various universities. The annual turnout from these schools and colleges is over 7,266 and over 200 respectively. Post-basic diploma/certificate courses are offered for qualified nurses in public health nursing, paediatric nursing, psychiatric nursing, education and nursing administration. Ten colleges offer post-basic B.Sc. degree for qualified nurses and 4 colleges offer master's degree in nursing.

There are 340 auxiliary nurse-midwife/health workers schools in the country with an annual admission capacity of over 14,347. The yearly turnout is over 6,000. Since the regular lady health visitors training has been discontinued from September 1977, the schools are being utilised for promotional training courses for auxiliary nurse midwives.

Research

The Indian Council of Medical Research initiates, develops and coordinates medical research in the country. It is financed mainly by

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the Government of India. The Council maintains, besides a number of semi-permanent units, 18 permanent research institutes/centres. [For details see under Medical Research in the chapter on Scientific Research.]

There are two statutory bodies to conduct research in various branches of medical sciences. These are the All India Institute of Medical Sciences, New Delhi and the Post-Graduate Institute of Medical Education and Research, Chandigarh. There is also an All India Institute of Speech and Hearing at Mysore. The Directorate General of Health Services also supports selected research projects in relation to *kala azar,* plague, etc. Financial assistance is provided to various bodies for conducting research. At present, two projects, Kalaazar Unit, Patna, and the Plague Surveillance Unit, Bangalore are functioning.

The Central Research Institute, Kasauli is the Central laboratory for all biological products. It has been entrusted with the responsibility of evolving national standards and distributing both the national and international standards for standarising biological products manufactured in the country. The Institute functions as the national centre for giving expert advice both to the Government and public on rabies, yellow fever, snake-bite, cholera, typhoid, whooping cough, tetanus and diphtheria. It carries out both basic and applied research in the prevention of communicable diseases.

The Pasteur Institute, Coonoor, conducts research in rabies, influenza, other respiratory virus infections, diseases caused by intestinal viruses and bacterial diseases like enteric fevers and syphilis. It is the main centre for research on rabies and influenza in the country. The King Institute of Preventive Medicine, Guindy, Madras, gives post-graduate training in micro-biology, supplies prophylactic vaccines, anti-tetanus sera, tetanus toxoid, blood products and intravenous and special solutions of various kinds. The Haffkine Institute, Bombay, conducts research in bacteriology, experimental medicine, chemotherapy, pharmacology, pathophysiology, biochemistry, immunohaematology, immunology and virology related to communicable and other diseases. It also undertakes drugs analysis and biological standardization. The Haffkine Biopharmaceutical Corporation, Bombay, manufactures some bacterial and viral vaccines, anti-toxins and other biological products including human plasma products. Some institutions are working in the field of various specialized medicines. [For details see Medical Research in the Chapter on Scientific Research.]

NUTRITION

The health services fight malnutrition through the network of medical and health centres. State nutrition divisions have been set up in the health directorates of 18 states and 2 union territories to assess the diet and nutritional status in various groups of population, conduct nutrition education campaigns, supervise supplementary feeding programmes, other nutritional ameliorative measures, baseline surveys and evaluation of the applied nutrition programme. These divisions are also responsible for monitoring the nutritional status of the population in areas affected by natural calamities such as flood and drought. On the recommendations of the central coordination committee for nutrition programmes, action is being taken to establish state nutrition divisions in the remaining 4 states and 7 union territories.

Surveys conducted by the state nutrition divisions and the national nutrition monitoring bureau have revealed that the protein-calorie

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malnutrition and deficiency diseases are prevalent in large sections of the population. The most affected are young children, pregnant and lactating mothers.

The Central Government is implementing various nutrition programmes. Most of the programmes, which have been started, are in the form of supplementary feeding programmes. Important among them are the school mid-day meal programme for primary school children and the special nutrition feeding programme for pre-school children and pregnant and lactating mothers. Two crore beneficiaries will be covered in the Sixth Plan. Under the applied nutrition programme the population in rural areas is educated about the need for consumption of nutritious foods such as leafy vegetables, fruits, fish and eggs and encouraged to produce those locally. A scheme known as integrated child development services has been introduced. Under it a package of services such as supplementary nutrition health and non-formal education, referral services, immunisation, health check-up and safe water supply will be provided to the vulnerable groups in 1,000 selected blocks including urban, rural and tribal areas.

To prevent blindness among children due to vitamin A deficiency in their diet, a concentrated dose of vitamin A is given orally every six months through health centres. This programme covered about 84 lakh beneficiaries during Fifth Plan. Two and a half crore children are being covered annually in the Sixth Plan period. Similarly, to prevent nutritional anaemia among women and children, combined tablets of iron and folic acid are being distributed through health centres. The programme is expected to cover 6 crore mothers and 6 crore children in the Sixth Plan. At present, the programme covers 2.4 crore mothers and children annually.

The National Institute of Nutrition, Hyderabad and the All India Institute of Hygiene and Public Health, Calcutta are the principal organisations in India for nutrition research and training of nutrition workers.

PREVENTION OF FOOD ADULTERATION

The Prevention of Food Adulteration Act, 1954 has been in force since 1 June 1955 with the objective of making available wholesome and pure food-stuffs to the consumers. The Act is enforced by and large by the local bodies in the states though some of the states like Maharashtra, Andhra Pradesh, Gujarat, Madhya Pradesh and the union territory of Delhi have taken up the responsibility of implementing the Act at their level by establishing separate directorate of food/drug wing. The Central Government in the Ministry of Health and Family Welfare is responsible for overall implementation and enforcement of Prevention of Food Adulteration Act, 1954, and Rules 1955 made thereunder.

The Act was amended in 1964 giving powers to the Central Government to appoint their own food inspectors also and thus to supplement the efforts of the state governments or to activate the implementation where the state or local bodies are found to be slacking. In 1976, the Act was further amended making penalties more stringent. A minimum imprisonment of six months with a minimum fine of Rs 1,000 is envisaged under the amended Act whereas for the cases of adulteration, which may render the food injurious to cause death or such harm which may amount to grievous hurt, the punishment may be up to life imprisonment and a fine which shall not be less than Rs 5,000.

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The Central Government after consulting Central Committee for Food Standards and with prior notification in the Gazette makes rules for giving effect to the various provisions of the Act and in general defines standards of foods, regulates the sale and storage of foods, manufacture, distribution of any item of food or any adulterant, which is known to be used for adulterating food.

For advising the Central or the state governments with regard to implementation of the Act there is a statutory committee—Central Committee for Food Standards. The Committee is assisted by various technical sub-committees. At present, there are 4 central food laboratories *viz.*, Central Food Laboratory, Mysore situated at C.F.T.R.I., Mysore; Central Food Laboratory, Ghaziabad situated at Food Research and Standardisation Laboratory, Ghaziabad; Central Food Laboratory, Pune at State Public Health Laboratory, Pune; and Central Food Laboratory, Calcutta. Samples are sent to these appellate laboratories by the courts. Statements of the facts contained in the reports given by the Central Food Laboratories are considered to be final and conclusive evidence.

Besides the central food laboratories, there are 91 food laboratories in the country under the control of state governments/local bodies. The samples lifted by the food inspectors are sent to these laboratories and on the basis of the reports given by these laboratories prosecutions are launched in the courts.

Under joint FAO/WHO Food Standards programme, Codex Alimentarius Commission has been established to formulate world-wide standards for food. India is also a member of this world body. Ministry of Health and Family Welfare is the liaison office for Codex Commission in India. National Codex Committee has been formed under the Ministry of Health to maintain liaison with the concerned departments in the Government of India and with the international bodies.

Training being an important component for the programme of prevention of food adulteration, the Directorate General of Health Services organises in-service training programmes for food inspectors, chemists, local (health) authorities and other senior officers concerned with the implementation of Prevention of Food Adulteration Act in the country. The Ministry of Health and Family Welfare/DGHS is engaged on a comprehensive survey of food contaminants in order to obtain data on presence of contaminants in food and it will be used for further monitoring and surveillance.

The Central Government coordinates and advises the state governmets from time to time to carry out the educational publicity programmes. The Central Health Education Bureau, a technical division of the DGHS, has brought out pamphlets for consumers' guidance regarding quick tests for adulterants.

FAMILY WELFARE

Family welfare programme which is an essential part of our strategy of enlarging welfare is being implemented as a wholly voluntary programme and as an integral part of the overall national strategy of growth covering health, maternity and child care, family welfare, women's rights and nutrition. The main objective is to reach over 12 crore literate and illiterate couples in the various reproductive age groups, living in urban and remote rural areas for giving information

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and education on the merits of having small family. To achieve this goal broad-based mass education and motivation programme is being pursued.

Though officially the family planning programme in India was launched in 1952, the birth control movement in the country is older than that. The first two birth control clinics anywhere in the world were established in Karnataka as far back as in 1930. In those days, birth control was not talked about freely. In the West, as well as in India, some people did practise it, but they belonged to the elite. Some traditional methods of contraception were used in India but there was no such thing as a government-sponsored organised family planning programme. There was however, a good deal of consciousness amongst the enlightened people in the country that in the interest of happy family life and the well-being of the community, contraception facilities should be provided to those who wanted them. The establishment of the two clinics in Karnataka in 1930 is indicative of this.

FAMILY WELFARE UNDER PLANS

With the launching of the First Plan in 1951, India entered the era of planning. In recognition of the fact that a rapidly growing population would be a hindrance in raising the standards of living of the people, family planning was adopted as an official programme in 1952. During the First and Second Plans, the programme was taken up in a modest way with a clinical approach and the stress was mainly on research in the field of demography, communication, physiology of reproduction and motivation. Centres were also established in certain areas for providing clinical services and advice on family planning to those who came to seek it. The programme was reorganised in the Third Plan and the "clinical approach" adopted so far was supplemented by "extension approach" under which the message, services and supplies of contraceptives were sought to be made available to the people on a cafeteria basis in regard to adoption of the methods. A fullfledged Department of Family Planning was created at the Centre in 1966 and the programme was reorganised and made target-oriented on the basis of a report of a sub-committee. In the Fourth and Fifth Plans, the programme was accorded a very high priority in the planning process. During these years the programme underwent great expansion, consolidation and integration of family planning with maternal and child health care. As a result of independent evaluation of the programme important changes were introduced in it to make it more responsive to the larger needs of the people. These changes embraced almost all areas relevant to family planning—mass education and motivation, services and supplies, training of workers, research and evaluation, association of voluntary organisations with the programme and systematic involvement in it of such institutions as those representing women, workers in the organised sector of industry and their employers.

For desensitising information and educating people about family welfare, press, films, radio and television, oral and visual communication media like song and drama troupes and inter-personal communication through a network of media and extension workers is being used extensively. Besides the eligible couples, an effort is also being made to reach the remaining sections of population to motivate them to accept small family norm when they reach reproductive stage. Population education is being introduced in the formal school and university

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systems in the country. With the cooperation and assistance of all official and non-official agencies working in the country for development programmes, like trade unions, cooperatives and *panchayats,* etc., are being used for introducing population education through non-formal channels. Mass Mailing Unit of the Department of Family Welfare is being used to disseminate information, education and motivation of different categories of people like opinion leaders, various categories of workers involved in this programme, change agents, journalists, etc., through this direct mail service. Efforts are being made to create this type of direct mailing services in all the states.

Implementation Machinery

The programme is implemented through the state governments for which cent per cent central assistance is provided. In rural areas, the programme will be further extended through a network of primary health centres and sub-centres. The Sixth Plan envisages the establishment of 40,000 additional sub-centres during 1980-85. Maternal and child health and expanded programme on immunisation are also a part of the family welfare programme.

The Central Family Welfare Council advises on family welfare programmes at the national level. A number of central committees like the research co-ordination committee have been set up to study the progress of research programmes.

Voluntary organisations and private medical practitioners are also associated to make the maximum use of available resources for optimum results. The programme is implemented through 5,428 rural, 1,766 urban family welfare centres and 57,638 sub-centres. Besides, 5,780 other institutions also render service.

PERFORMANCE

Sterilisation and IUD

Since the inception of the programme, 402.4 lakh sterilisation and 106 lakh IUD insertions had been done, giving a rate of 56.5 per thousand population for sterilisations and 14.9 for IUD insertions, up to 31 March 1983.

Nirodh

Between April 1982 and March 1983, 24.12 crore pieces of *nirodh* were sold under the commercial scheme operated through a network of over 4.15 lakh retail shops by 12 leading consumer goods marketing companies in India. Under the free distribution scheme, 17.28 crore pieces of *nirodh,* 938 diaphragms, 42,291 jelly/cream tubes and 9,270 foam tablets were distributed during the same period.

Oral Pills

The oral pill programme was extended to all the urban centres, including those run by local bodies and voluntary organisations and those primary health centres where the programme could be monitored and patient followed up. The pills are now being distributed through 4,719 rural and 2,493 urban centres/hospitals in the country.

Impact of the Programme

It is estimated that 25.9 per cent of 12.14 crore eligible couples whose wives are in the reproductive age group 15-44 were protected by one or another of the approved methods of family welfare (as on 31 March 1983). As a result of the work done up to 31 March 1983, estimated 547 lakh births had been averted.

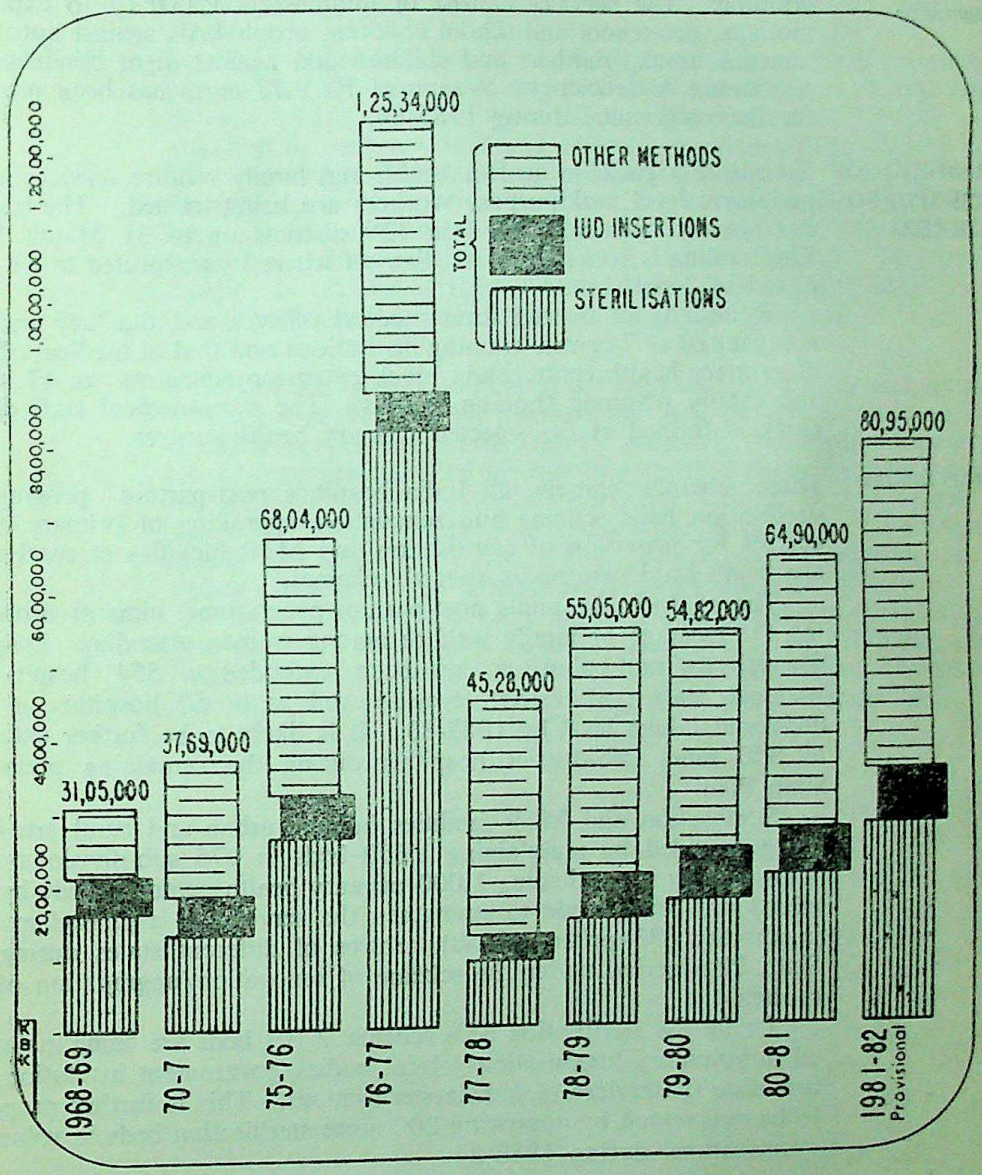
Medical Termination of Pregnancy

The programme of medical termination of pregnancy through well-trained doctors in well-equipped approved hospitals is essentially a health care measure. But in a way, it supplements the family welfare

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ACCEPTORS OF FAMILY PLANNING METHODS



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programme as it provides for legalised abortion in cases of contraceptive failures also. A good proportion of the acceptors of abortion go in for some form of contraception like sterilisation, IUD, etc. Since its inception in April 1972, a total of 28,09,817 terminations have been done. During 1982-83, 4,09,296 terminations were done.

Maternal and Child Health Programme

This is an important and crucial component of the family welfare programme. The services consist of immunization (DPT) to expectant mothers, pre-school and school children, prophylaxis against nutritional anaemia among mothers and children and against night blindness due to vitamin A deficiency. A sum of Rs 9.77 crore has been provided for the programme during 1983-84.

TRAINING OF MULTIPURPOSE WORKERS

To ensure a package deal of health and family welfare services at the peripheral level multipurpose workers are being trained. The training has already been completed in 329 districts up to 31 March 1982. The training is going on in 41 districts where it is expected to be completed by March 1984.

Retraining of district level medical officers and the 'key trainees' is organised at 7 central training institutions and that of medical officers of primary health centre and block extension educators at 47 health and family planning training centres. The para-medical staff of the block is trained at the selected primary health centres.

Special Schemes

Three schemes, namely, all India hospitals post-partum programme, sterilisation beds scheme and renovation/upgrading of primary health centres for provision of sterilisation and MTP facilities at rural areas are being implemented as special schemes.

The all India hospitals post-partum programme, aims at propagating the message of family welfare among women attending hospitals for delivery and abortion, has been extended to 554 hospitals at national, state and district level as well as in 50 hospitals at sub-divisional/taluka level by 1982-83. It is likely to be further extended to 350 more sub-district hospitals during the remaining period of Sixth Plan.

Sterilisation and MTP facilities in semi-urban and rural areas are being provided by maintaining 1,650 beds in 275 sub-divisional hospitals and by strengthening 1,000 primary health centres. Side-by-side efforts are being made to strengthen the services in a phased manner in another 833 primary health centres of different states during the Sixth Plan period under the scheme of renovation/upgradation of the centres.

Under the sterilisation beds scheme, 2,101 beds are being maintained in voluntary organisations/ local bodies/government institutions for provision of services of female sterilisations. This is further proposed to be augmented by approving 200 more sterilisation beds in voluntary organisations during 1983-84.

Motivation and Education

The family welfare programme in India depends on its voluntary acceptance by the people. To approach 12 crore literate and illiterate couples in the reproductive age group, living in urban and remote rural areas, a broad-based mass education and motivation programme has been launched. The Mass Mailing Unit of the Department of Family

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Welfare desseminates information in the form of printed materials, including booklets, folders and journals, to various categories of opinion leaders through direct mail service. The list includes over 10 lakh addresses. In addition to this, the Unit publishes two regular monthly journals—*Centre Calling* in English and *Hamara Ghar* in Hindi, and two quarterly publications—*Jan Swasthya Rakshak* in Hindi and E.P.I. Bulletin in English. Total print order of these periodicals is well over two lakh per issue.

Area Project

In order to improve access to health and family welfare services that promote fertility and mortality reduction and to improve and expand services and support systems of the Government of India's model health plan, international and bilateral assistance from World Bank, UK, and United Nations Family Planning Assistance is being received for creating infra-structure facilities in selected districts of the following 12 states, Andhra Pradesh, Uttar Pradesh, Orissa, Bihar, Rajasthan, Madhya Pradesh, Tamil Nadu, Gujarat, Maharashtra, Punjab, Haryana and Himachal Pradesh. The projects taken up with the international assistance are known as area projects.

Research and Evaluation

Research activities continued in the field of demography and communication action through 16 demographic and/or communication action research centres in various states. Similarly, bio-medical research in the field of reproductive biology and fertility control is being done in the Indian Council of Medical Research, Central Drug Research Institute, All India Institute of Medical Sciences and National Institute of Health and Family Welfare. The Co-ordination Committee on Bio-medical Research was reconstituted on 29 January 1976.

Some major international agencies offer assistance to India in the field of health and family welfare. They are WHO, UNICEF, United Nations Family Planning Assistance and the World Bank. Some other foreign agencies also assist the programme on a bilateral basis.

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9 SOCIAL WELFARE

Social welfare activities in the country find their inspiration in the Indian Constitution which postulates the goal of a welfare state. Article 38 of the Constitution enjoins that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life. The Constitution also enjoins the state to ensure that 'the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age and strength', and that 'childhood and youth are protected against exploitation and against moral and material abandonment'.

The social welfare services in over three decades of planning have sought the welfare and the development of children, women and the physically and socially handicapped of the society. Greater emphasis has been laid on the welfare of the women and children from the vulnerable sections of the community in rural and tribal areas and urban slums.

ADMINISTRATIVE SET-UP

The Ministry of Social Welfare at the Centre and the departments of the state governments are responsible for the welfare and development of children, women and the physically and socially handicapped sections of the society. Their efforts are directed to complement and support the national efforts to bring about growth with social justice. Cooperation and involvement of voluntary organisations is also enlisted in this task.

Social welfare and development activities in the country are coordinated at the union level by three bureaux in the Ministry of Social Welfare, each dealing with nutrition and child development, social security and handicapped welfare and development, and welfare of women.

The Bureau of Nutrition and Child Development is responsible for overall policy and coordination of child development, besides imple-

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menting child development programmes. The important programmes implemented by the Bureau include Integrated Child Development Services (ICDS), creches for children of working and ailing women and welfare of children in need of care and protection. It also coordinates the work of UNICEF, CARE-assisted programmes and the different nutrition programmes like special nutrition programme, balwadi nutrition programme, etc. The National Institute of Public Cooperation and Child Development, Delhi engaged in training and research activities for child development, works under the administrative control of this Bureau.

The Social Security and Handicapped Welfare Bureau is concerned with the implementation of policies and programmes for the welfare of the handicapped. Special programmes for early detection, education, training and rehabilitation of the physically handicapped are the responsibility of the Bureau. Some of the important schemes operated by the Bureau are award of scholarships to the disabled students, assistance to disabled persons for purchase of aids and appliances, integrated education, grants to voluntary organisations for extending services to the handicapped, etc. National institutes have also been set up to conduct research and impart training in various aspects of disablement. The National Institute for the Visually Handicapped at Dehra Dun, the National Institute for the Orthopaedically Handicapped at Calcutta, the Institute for the Physically Handicapped at New Delhi, the School for the Mentally Retarded Children at Delhi and the Training Centre for the Deaf at Hyderabad, are under this Bureau. The Ali Yavar Jung Institute for the Hearing Handicapped is being set up in Bombay. An Artificial Limbs Manufacturing Corporation is working at Kanpur to produce aids and appliances for the handicapped.

The Planning, Research, Evaluation and Monitoring Division of this Bureau is responsible for planning, sponsoring of research and evaluation studies, collection and compilation of statistics, compilation of publications, etc.

The Women's Welfare and Development Bureau is charged with the responsibility of coordinating women's welfare and development programmes. It also undertakes programmes like providing assistance for construction of hostels for working women with day care facilities for children, setting up of training centres for women in distress, etc. The Central Social Welfare Board (set up in 1953) and the National Institute of Social Defence (set up in 1975) are also under the administrative charge of this Bureau.

SOCIAL WELFARE UNDER PLANS

Beginning from a meagre expenditure of Rs 1.6 crore in the First Plan, the Plan outlays and expenditure in the social welfare sector have been on the increase. During the Sixth Plan, an outlay of Rs 150 crore has been made for the central and the centrally sponsored programmes of the Ministry of Social Welfare.

WELFARE OF CHILDREN

In August 1974, the Government of India adopted a national policy resolution for children. The resolution spells out the various measures to be adopted and the priorities to be assigned in children's programmes. In accordance with the resolution, a National Children's Board was set up in December 1974. The Board was reconstituted on 25 May 1981. Similar boards have been constituted in all states except Himachal Pradesh and the union territory of Chandigarh.

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Integrated Child Development Services

In the Sixth Plan, highest priority is being accorded to child welfare programmes. The most important scheme in this field is the Integrated Child Development Services (ICDS) for children in the age group 0-6, nursing and expectant mothers, etc. Under this scheme, a package of services consisting of supplementary nutrition, immunization, health check-up, referral services, nutrition and health education and non-formal pre-school education is provided. By the end of 1982-83, there were 620 such projects, of which 94 were located in urban, 336 in rural and 190 in tribal areas. It is proposed to open 200 additional projects in 1983-84 and 180 in 1984-85 making a total of 1,000 projects in the Sixth Plan period to provide supplementary nutrition to 60 lakh children, immunization to 165 lakh children and pre-school education to 30 lakh children.

Services for Children in Need of Care and Protection

Providing care and protection to abandoned, neglected, unwanted and destitute children is another important programme. The need for such a programme has arisen as a result of the breaking up of the traditional family system which provided care and shelter to dependent children. Under the scheme, started in 1974-75, assistance is provided to voluntary organisations for residential care as well as foster care of destitute children. By the end of 1982-83, about 59,000 needy children were given care and protection.

Creches for Working and Ailing Mothers' Children

The scheme provides day care services for the children of working and ailing mothers in the age group 0-5. The children are given sleeping facilities, day care services, supplementary nutrition, medicines, recreation and weekly health check-up by the doctors. The scheme implemented through the voluntary organisations made a modest beginning with 247 creches to cover about 5,000 children in 1974-75 has gained momentum and will cover 1,25,000 children in 5,000 creches during 1983-84.

Nutrition Programmes

To meet the widespread nutritional deficiency among children, especially those belonging to the lower economic strata, various nutrition programmes are implemented. The special nutrition programme, launched in 1970-71, provides supplementary nutrition to children below six years, expectant and nursing mothers in tribal and backward rural areas and urban slums. The present coverage under the programme is about 80 lakh beneficiaries, all over the country. Another nutrition programme is run through *balwadis* and day care centres run by voluntary organisations. Under this programme, children in the age group 3-6 are provided supplementary nutrition. About 2.29 lakh children are at present covered under this programme through 7,000 *balwadis*.

A nutrition project under World Food Programme is also being operated since 1976 in 10 states covering 20 lakh children. The targetted programme in its next expansion phase is to cover 21 lakh beneficiaries in 12 states by 1985. CARE supplies food commodities for various nutrition programmes. In all supplementary nutrition programmes, health inputs and safe drinking water facilities are being progressively extended to maximise the impact. A Central Co-ordination Committee ensures an integrated approach to the nutritional needs of children and mothers and also the linkages of nutrition with other sectors of development.

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To encourage voluntary efforts, national awards have been instituted for outstanding work done in the field of child welfare, both for the individuals as well as for the organisations, commencing from 1979 with a cash prize of Rs 20,000 and a citation to an individual and a cash prize of Rs 1,00,000 and a citation for an institution.

National Institute of Public Cooperation and Child Development

The National Institute of Public Co-operation and Child Development, Delhi, undertakes research, evaluation and training in the field of voluntary action and child development. Its programme covers research on a wide range of problems and training of ICDS and field level functionaries as well as senior personnel in social administration. The Institute has three field units one each at Guwahati, Bangalore and Lucknow.

Training Programmes

With a view to make available adequate number of trained personnel to undertake various programmes, a number of training programmes for field level functionaries have been sponsored. The *balsevika* training programme was started during 1961-62 to train child welfare workers. In 1982-83, there were 39 Balsevika Training Centres imparting eleven months' training in pre-school education, recreation, health, nutrition, social work and in the concept of ICDS. To meet the growing needs for social workers, particularly in the voluntary sector, the National Institute of Public Cooperation and Child Development and the National Institute of Social Defence also organise short duration courses and workshops for non-officials.

International Year of the Child

The observance of the International Year of the Child (IYC) in 1979 gave great impetus to the expansion of the programmes for the welfare of the children. During that year, a comprehensive national plan of action for the development of children in the fields of nutrition, health, education, welfare, etc., was drawn up. To concretise the efforts of the Government for the development of children, the Ministry of Social Welfare is formulating *A Perspective Plan on Child Development—1980–2000*. A National Children's Fund was also set up during the IYC to raise resources for the child welfare programmes.

WELFARE OF WOMEN

A national plan of action for the welfare and development of women has been formulated covering different facets of their development and participation. To keep a watch on the implementation of policies and programmes for women, a National Committee on Women has been constituted. The Ministry of Social Welfare is the nodal point in the Government of India on all matters relating to women including coordination.

Functional Literacy for Adult Women

The scheme of functional literacy for adult women in the age group 15–45 was started in 1975-76. The scheme offers nonformal education covering health and hygiene, food and nutrition, home management and child care in 620 ICDS project areas.

Condensed Course of Education and Vocational Training for Adult Women

To open new vistas of employment to deserving and needy women and to create a band of competent trained workers such as primary school teachers, *balsevikas,* nurses, health visitors, mid-wives and family planning workers, particularly in rural areas, the scheme of

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condensed course of education was started. Since the inception of scheme in 1958, up to December 1982, 6,607 courses benefiting about 1,40,600 women were sanctioned.

Hostels for Working Women

In order to encourage women to take up work outside their habitat, a scheme to provide grants-in-aid to voluntary organisations for construction/expansion of hostel buildings was started in 1972 to make available cheap and safe accommodation to working women from low income groups. Financial assistance under this scheme is given to registered voluntary organisations working in the field of women welfare on a cost sharing basis, the Government providing 75 per cent of the total estimated cost of construction. Since the inception of the scheme in 1972-73, about 300 hostels have been sanctioned to provide accommodation to about 18,500 working women.

Socio-economic Programme for Women

In order to provide opportunities of work and wages to needy women on a full time basis, a socio-economic programme was initiated in 1958 by the Central Social Welfare Board. The programme is gaining momentum and in the coming years agro-based schemes and self-employment schemes are proposed to be promoted to a large degree. At present, about 5,300 units are being assisted to benefit about 60.000 women.

Training Centres for Rehabilitation of Women

A scheme for setting up rehabilitation centres with the object of training destitute women in the age group 18–50 in marketable skills was started in 1977. During the period of training, the women and their dependent children (below six years) are provided residential facilities and care. The scheme is implemented through voluntary organisations which are given 90 per cent assistance for the purpose. About 2,000 women are being benefited under this scheme.

Other Programmes

There are a number of other women's programmes, operated by the Central Social Welfare Board, state governments and voluntary organisations. Important among these are assistance to local village level women's organisations (*mahila mandals*), vocational training and rehabilitation centres and setting up of homes for destitute women. Some states have started women's development corporations to promote and assist economic activities by women. A number of voluntary organisations are actively engaged in mobilising public opinion and support to eradicate practices like early marriage, dowry system, withdrawing of girls from schools, etc.

Legislative Measures

In pursuance of the recommendations of the Committee on the Status of Women in India, the Government have accepted the principle of divorce by mutual consent and the Hindu Marriage Law has been amended to this effect. Cruelty and desertion have been added as grounds for divorce. Taking and giving of dowry has been declared as violation of government servant's conduct rules for Central Government employees. States were also advised to take similar action. Kerala, Himachal Pradesh, Tamil Nadu and Andhra Pradesh have accepted the advice. Orissa, Bihar, West Bengal, Haryana, Punjab and Himachal Pradesh have amended the Dowry Prohibition Act, 1961 in order to make the existing law more effective. Bihar and Himachal Pradesh have made the offences under the Act, cognizable. The Equal Remuneration Act, 1976 has been passed which provides for

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payment of equal remuneration to men and women workers and prevention of discrimination against women in the matter of employment. The Hindu Marriage Act, 1955 and the Special Marriage Act, 1954 have been amended by the Marriages Laws Amendment Act, 1976 to provide for the right of a girl to repudiate before attaining majority, her marriage as a child, whether the marriage has been consummated or not. The Child Marriage Restraint (Amendment) Act, 1978 raises the age of marriage for girls from 15 to 18 and for boys from 18 to 21. The offences under this Act have been made cognizable.

The Factories (Amendment) Act, 1976 provides for establishment of creche where 30 women are employed (including casual labourers or contract labours) as against one for every 50 hitherto. The Maternity Benefits Act, 1961 was amended in April 1976 to cover women who do not fall within the purview of the Employees' State Insurance Act, 1948.

WELFARE OF THE PHYSICALLY HANDICAPPED

According to a recent survey conducted by the National Sample Survey Organisation, it is estimated that there are about 1.20 crore disabled people in the country. Programmes are being implemented for the early detection and treatment, education, training and rehabilitation of handicapped persons, namely, the blind, the deaf, the orthopaedically handicapped, the mentally retarded, spastics and the leprosy cured persons. Research and development work in the area of the disabled is being carried out by the different national level organisations.

Blind

There are about 200 schools and training centres for the blind in the country. At the national level, the National Institute for the Visually Handicapped, Dehra Dun, provides integrated services including a model secondary school for blind children attached to the Institute. The Institute also has a training centre for the adult blind, a school for the partially sighted children, a workshop for the manufacture of Braille appliances, a sheltered workshop and the central Braille press. The National Library for the Blind, which also forms part of the Institute, circulates Braille literature in the country. The teachers' training centres at Delhi, Bombay, Calcutta and Madras train 40 to 50 teachers for the blind annually.

Deaf

To provide integrated services at national level for the education, training and research for the hearing handicap, the Ali Yavar Jung National Institute for Hearing Handicapped has been set up at Bombay. The Training Centre for the Adult Deaf and the school for the partially deaf children at Hyderabad impart training in tailoring, sheet metal work, electrical wiremanship, carpentry, fitting, welding and photography.

Orthopaedically Handicapped

A National Institute for the Orthopaedically Handicapped has been set up in Calcutta. The Institute concentrates on research and training of personnel for the rehabilitation of the orthopaedically handicapped.

Mentally Retarded

A model school for the mentally deficient children is functioning in Delhi for children in the age group 6-15. The school also provides

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training in few crafts. A national level institute for the mentally retarded is also proposed to be set up.

Integrated Education

In pursuance of the national policy on education, a scheme of integrated education has been evolved to place handicapped children in ordinary schools. States are given cent per cent assistance to run the scheme.

Assistance for Purchase of Aids and Appliances

Under a new scheme of assistance for purchase/fitting of aids and appliances launched during the International Year of the Disabled Persons, aids and appliances costing between Rs 25 and Rs 1,500 are provided free of cost to the persons whose income is less than Rs 750 per mensum and at half the cost to those whose income is between Rs 751 and Rs 1,500 per month. During 1982-83, grant-in-aid of Rs 100 lakh have been provided to about 56 implementing agencies recognised for the purpose.

Scholarships

Scholarships are awarded to the blind, deaf and orthopaedically handicapped students for general education and for technical and professional training. About 10,000 scholarships are awarded annually. The implementation of the scheme has since been decentralised.

Petrol Subsidy Scheme

Under the petrol subsidy scheme, 50 per cent of the cost of petrol/diesel purchased by the handicapped owners of motorised vehicles, subject to certain ceilings, is reimbursed to all handicapped persons whose income is less than Rs 2,000 per month.

National Awards

Every year, the President of India gives national awards to outstanding employers of the handicapped and to the most efficient handicapped employees/self-employed persons from government and private sectors, local bodies, public sector undertakings, corporations and placement officers of the handicapped. In 1983, 11 employers, 19 employees, 3 self-employed persons and 2 placement officers were honoured under the scheme.

National awards for outstanding work for the welfare of the disabled was instituted in 1981 as a state recognition of voluntary action for the cause of the disabled. The awards consist of a citation, a certificate and a cash prize for an individual and to an institution.

Manufacture of Aids and Appliances

Artificial Limbs Manufacturing Corporation of India (ALIMCO), Kanpur, a government company, manufactures prosthetic and orthotic aids and other appliances to meet the requirements of the disabled personnel and other handicapped. To reach the rural disabled, rehabilitation centres are set up to provide comprehensive and integrated services for the physically handicapped at district and health centre level.

International Year of the Disabled Persons

The year 1981 was celebrated as the International Year of the Disabled Persons (IYDP) by launching new programmes, expanding the existing ones and creating awareness about the potential of the disabled. A national plan of action was prepared under the guidance of a National Committee, and a National Council has been set up as an advisory body to ensure a coordinated and comprehensive approach to research, training and services for the disabled population. It has also been decided to create a National Handicapped Welfare Fund.

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Reservation in Services To encourage employment of the handicapped three per cent of Group C and D posts are reserved in central services and public sector undertakings for the physically handicapped.

SOCIAL DEFENCE In order to check and discourage various forms of personal and social deviance, special programmes of social defence for maladjusted groups and individuals have been started by state governments mainly within the framework of specific legislations and allied measures. These measures include welfare of prisoners, prevention and control of juvenile delinquency, probation, beggary control, social and moral hygiene programmes, etc.

Welfare of Prisoners In the field of crime prevention and treatment of offenders, a greater need has been felt to protect the rights of offenders. Under the scheme, welfare officers look after the individual problems of prisoners and assist in solving them in liaison with their families. Creches are established in some prisons for the children of women prisoners.

Juvenile Delinquency Juvenile delinquency is a state subject. Children's Act enacted by the Centre is adopted by various states to provide for necessary infrastructure of juvenile courts, child welfare boards, remand/observation homes, special/certified/approved schools for ensuring the care, protection, maintenance, welfare, training, education and rehabilitation of delinquent children. The Children's Act, 1960, is applicable to all the union territories.

Probation Services The Probation of Offenders Act, 1958, contains a mandatory provision for calling upon the courts to consider social investigation report from the probation officers in respect of youthful offenders under the age of 21. It also provides for the release of offenders below the age of 21 on probation except in cases of life imprisonment. It is a central legislation adopted by most of the states. Some voluntary organisations provide financial and other assistance to those released on probation such as hostel accommodation and employment assistance.

Beggary Prevention Fifteen states and two union territories have anti-beggary legislation. In others, Municipal and Police Acts provide for measures against begging. The Government of India is considering a uniform legislation on beggary for union territories which may also serve as a model for states.

Social and Moral Hygiene The Indian Constitution prohibits traffic in human beings. The Government of India passed in 1956 Suppression of Immoral Traffic in Women and Girls Act. It is a central legislation applicable to the whole of the country and empowers the state governments to make rules for its proper implementation. This Act prohibits prostitution in the commercialised form as an organised means of living and inhibits prostitution in notified areas. Under the Act, women and girls rescued from brothels are sent to protective or corrective homes. Various states and union territories have set up protective homes, reception centres, short-stay homes and district shelters for women and girls facing moral danger. The Act was suitably amended in 1978 in the light of the experience gained during implementation of the Act.

Prohibition Article 47 of the Constitution enjoins that the state shall endeavour to bring about prohibition of the consumption except for medicinal

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purposes, of intoxicating drinks and drugs which are injurious to health. The responsibility for fulfilling the Constitutional obligations in regard to prohibition rests largely with the state governments. A Central Prohibition Committee set up by the Government of India reviews the progress of prohibition in different states and suggest ways and means to intensify the work. The Central Government has also issued guidelines for enforcement of prohibition.

National Institute of Social Defence

The National Institute of Social Defence, New Delhi has been assigned technical functions with regard to the coordination, standardisation and development of social defence programmes in various areas including those relating to the prevention of alcoholism, gambling, suicide and drug addiction.

To achieve these, the Institute undertakes research, collects statistics, promotes training, helps draft model legislations and rules, creates public awareness on social defence problems and establishes liaison with universities and research agencies. Under its training programmes, the Institute organises training courses/seminars for persons engaged in the field of social defence. These courses/seminars are broadly on beggary prevention, juvenile delinquency, suppression of immoral traffic in women and girls, prison administration, voluntary participation in social defence, prevention of drug abuse and alcoholism, welfare services in prisons, etc. It also advises Central and state governments on various aspects of social defence development.

Welfare Services for the Aged

In the Indian family system, the care of the aged is the responsibility of their children or other close kins. Although this responsibility is generally discharged, force of circumstance sometimes leaves old people without any means of support, specially since only a very small percentage is currently covered by pension, gratuity, etc. All state governments and union territories except Assam have started schemes of cash assistance to old people who are without any means of support. Homes for the aged and other services to assist the aged in their homes have been started by both government and voluntary agencies.

RESEARCH AND EVALUATION

The Ministry of Social Welfare since 1973-74 has been sponsoring research and evaluation studies in the field of social welfare, social policy and social development through the scheme of grants-in-aid for research. Under this scheme, universities/research institutions/professional bodies are given grant to meet the cost of the research project according to approved norms. Since the inception of the scheme, till December 1982, over 200 research projects had been sanctioned.

SCHEDULED CASTES AND SCHEDULED TRIBES

The scheduled castes and scheduled tribes have been specified by 15 Presidential orders issued under the provisions of Article 341 and 342 of the Constitution. According to the 1971 census, about 22 per cent of the country's population comprised the scheduled castes and the scheduled tribes. In addition, some state governments have also specified other categories of people known as the "other backward classes" and denotified nomadic and semi-nomadic communities.

While the Constitution has prescribed certain protective measures and safeguards for these classes, the successive five year plans have regarded their progress as a major objective of national policy.

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CONSTITUTIONAL AFEGUARDS

The Constitution prescribed protection and safeguards for the scheduled castes and scheduled tribes, and other weaker sections either specially or by way of insisting on their general rights as citizens with the object of promoting their educational and economic interests and of removing the social disabilities. The main safeguards are:

(i) the abolition of 'untouchability' and the forbidding of its practice in any form (Art. 17);
(ii) the promotion of their educational and economic interests and their protection from social injustice and all forms of exploitation (Art. 46);
(iii) the throwing open by law of Hindu religious institutions of a public character to all classes and sections of Hindus (Art. 25b);
(iv) the removal of any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels and places of public entertainment or the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partially out of state funds or dedicated to the use of the general public [Art. 15(2)];
(v) the curtailment by law in the interest of any scheduled tribe, of the general rights of all citizens to move freely, settle in, and acquire property [Art. 19(5)];
(vi) the forbidding or any denial of admission to educational institutions maintained by the state or receiving aid out of state funds [Art. 29(2)];
(vii) permitting the state to make reservation for the backward classes in public services in case of inadequate representation and requiring the state to consider the claims of the scheduled castes and scheduled tribes in the making of appointments to public services (Arts. 16 and 335);
(viii) Special representation in the Lok Sabha and the state vidhan sabhas to scheduled castes and tribes till 25 January 1990 (Arts. 330, 332 and 334);
(ix) the setting up of tribes advisory councils and separate departments in the states and the appointment of a special officer at the centre to promote their welfare and safeguard their interests (Arts. 164 and 338 and Fifth Schedule);
(x) special provision for the administration and control of scheduled and tribal areas (Art. 244 and Fifth and Sixth Schedules); and
(xi) prohibition of traffic in human beings and forced labour (Art. 23).

LEGISLATION AGAINST UNTOUCHABILITY

For enlarging the scope and making the penal provision more stringent, the Untouchability (Offences) Act, 1955 had been comprehensively amended by the Untouchability (Offences) Amendment and Miscellaneous Provisions Act, 1976, which came into force from 19 November 1976. With this amendment, the name of the principal Act has been changed to the Protection of Civil Rights Act, 1955. The Act provides penalties for preventing a person, on the ground of untouchability from enjoying the rights accruing out of abolition of untouchability. Enhanced penalties/punishment has also been provided for subsequent offences.

Under the provision of Section 8 of the Representation of the

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People Act, 1951, a person who is convicted of an offence under the Act is disqualified from contesting elections to Parliament and state legislatures for a period of six years commencing from the date of such conviction.

The Protection of Civil Rights Act, 1955, is administered by the state governments also from time to time. Under a provision in the Act, the Central Government also lays, every year, before each House of Parliament an annual report on the working of the provisions of Section 15A of the Act.

PROTECTION OF CIVIL RIGHTS ACT

In pursuance of the provisions made under Section 15A of the Protection of Civil Rights Act, central assistance is given to the state governments and union territories. Provisions for legal aid to the scheduled castes victims of Protection of Civil Rights cases have been made by 18 states. Special cells/squads have been created by 17 states for initiating and exercising supervision over prosecution for contravention of the provisions of the PCR Act. By June 1982, 17 states had set up committees at various levels to make periodical review of the problems of untouchability and cases related to it and suggest various measures for the effective implementation of the PCR Act. Andhra Pradesh has set up 7 mobile courts, Rajasthan and Tamil Nadu have also set up 3 and 4 special courts respectively. Bihar and Madhya Pradesh have constituted 4 special courts each. Necessary guidelines and instructions are issued to states from time to time for effective implementation of the provisions of PCR Act for which matching central assistance is provided to the states under the centrally sponsored scheme for implementation of PCR Act. Liberation of scavengers by conversion of existing dry-latrines has also been taken up under the centrally sponsored scheme of implementation of PCR Act. Ten states have so far been assisted under the scheme for selected towns on 'whole town approach' with the conditions for providing alternative employment to the liberated scavengers. In Bihar, the towns of Biharsharif, Purnea, Chaibasa, Madhubani and Daltonganj with central assistance and Ranchi, Saharsha and Deoghar with state funds have been made scavenging free and/the dry-latrines in these towns have been converted into water-borne ones. The work in selected towns of other states is in progress.

REPRESENTATION IN LEGISLATURES

Under Article 330 and 332 of the Constitution, seats are reserved for the scheduled castes and scheduled tribes in the Lok Sabha and state vidhan sabhas in proportion to their population. This concession was initially for a period of 10 years from the commencement of the Constitution but has been extended, through amendments, upto 25 January 1990. Parliamentary Acts provide for such reservations in the union territories having legislatures. There is no reservation of seats in Rajya Sabha and state vidhan parishads. Table 9.1 gives details of their representation in the Lok Sabha and state vidhan sabhas.

Following the introduction of *panchayati raj*, safeguards have been provided for proper representation of the members of the scheduled castes and tribes by reserving seats for them in the *gram panchayats* and other local bodies.

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TABLE 9·1
RESERVATION OF SEATS IN LEGISLATURES

State/Union Territory	Lok Sabha			Vidhan Sabha		
	Total Number of seats	Seats reserved for scheduled castes	Seats reserved for scheduled tribes	Total number of seats	Seats reserved for scheduled castes	Seats reserved for scheduled tribes
STATES						
Andhra Pradesh	42	6	2	294	39	15
Assam	14	1	2	126	8	16[1]
Bihar	54	8	5	324	48	28
Gujarat	26	2	4	182	13	26
Haryana	10	2	—	90	17	—
Himachal Pradesh	4	1	—	68	16	3
Jammu and Kashmir	6	—	—	76[2]	6	—
Karnataka	28	4	—	224	33	2
Kerala	20	2	—	140	13	1
Madhya Pradesh	40	6	9	320	44	75
Maharashtra	48	3	4	288	18	22
Manipur	2	—	1	60	1	19
Meghalaya[3]	2	—	—	60	—	—
Nagaland[3]	1	—	—	60	—	—
Orissa	21	3	5	147	22	34
Punjab	13	3	—	117	29	—
Rajasthan	25	4	3	200	33	24
Sikkim	1	—	—	32	2	12[4]
Tamil Nadu	39	7	—	234	42	3
Tripura	2	—	1	60	7	17
Uttar Pradesh	85	18	—	425	92	1
West Bengal	42	8	2	294	59	17
UNION TERRITORIES						
Andamans and Nicobar Islands	1	—	—	—	—	—
Arunachal Pradesh[3]	2	—	—	30	—	—
Chandigarh	1	—	—	—	—	—
Dadra and Nagar Haveli	1	—	1	—	—	—
Delhi[5]	7	1	—	56	9	—
Goa, Daman and Diu	2	—	—	30	1	—
Lakshadweep	1	—	1	—	—	—
Mizoram[3]	1	—	—	30	—	—
Pondicherry	1	—	—	30	5	—
TOTAL	542	79	40	3,997	557	315[6]

NOTE :
1. Four seats are reserved for two autonomous districts (North Cachar Hill and Mikir Hills).
2. Excluding 24 seats in the territory held by Pakistan.
3. No reservation has been made.
4. Reserved for Sikkimese of Bhutia-Lepcha origin.
5. Metropolitan Council.
6. Includes 12 seats reserved for Sikkimese of Bhutia-Lepcha origin.

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Reservation in Services

Article 335 of the Constitution provides that the claims of the members of scheduled castes and scheduled tribes shall be taken into consideration, consistent with the maintenance of efficiency of administration, in making appointment to posts and services, in connection with the affairs of the union or of a state. Article 16(4) permits reservation in favour of backward classes, who may not be adequately represented in services. In pursuance of these provisions, the Government of India has made reservations for scheduled castes and scheduled tribes in the services under their control.

For the scheduled castes, reservation is 15 per cent of the vacancies for which recruitment is made by open competition on an all-India basis and 16-2/3 per cent of the vacancies to which recruitment is made otherwise. For the scheduled tribes, the reservation is 7½ per cent in both cases. Reservation in direct recruitment to Group C and D posts, which normally attract candidates from a locality or region, is fixed in proportion to the population of the scheduled castes and tribes in the respective states and union territories.

Reservation is also made at 15 per cent of the vacancies for the scheduled castes and 7½ per cent for the scheduled tribes in promotions on the result of the competitive examinations limited to departmental candidates in Group B, C and D and in promotion by selection in Group B, C and D and to the lowest rung of Group A in grades or services to which direct recruitment, if any, does not exceed 66-2/3 per cent. Reservation has been provided for scheduled castes and scheduled tribes in promotion on the basis of seniority subject to fitness in Group A, B, C and D posts in grades or services to which direct recruitment, if any, does not exceed 66-2/3 per cent.

In promotions, by selection within Group A to posts carrying an ultimate salary of Rs 2,250 per month or less, the scheduled caste and tribe officers, who are senior enough in the zone of consideration for promotion and are within the number of vacancies for which the select list has to be drawn, are included in that list provided they are not considered unfit for promotion.

To facilitate their adequate representation, concession, such as (i) relaxation of age limit, (ii) relaxation in the standard of suitability, (iii) selection, provided they are not found unfit for the posts, (iv) relaxation of the qualification regarding experience in the case of recruitment only, wherever necessary, and (v) inclusion of scientific and technical posts up to the lowest grade of Group A required for research, in the scheme of reservations, have been provided for. Simultaneously with notification to employment exchanges or advertisements in newspapers, vacancies reserved for scheduled castes and scheduled tribes in Group C and D (Class III and IV) posts are announced over the stations of All India Radio located in areas having concentration of scheduled castes and scheduled tribes population, notified to the voluntary associations of scheduled castes and scheduled tribes enlisted for this purpose and to the Directors of SC/ST Welfare of the states and union territories. Vacancies filled through the Union Public Service Commission otherwise than through examination, are advertised on the first occasion exclusively reserved for scheduled castes/scheduled tribes and are advertised a second time, if necessary, when other community candidates are also considered, if no scheduled castes/tribes candidates still become available. Reservations for scheduled castes and

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scheduled tribes (including vacancies carried forward) is subject to the ceiling of 50 per cent of the total number of vacancies. The scheme of reservations is also being followed by the public sector undertakings. The voluntary agencies, which are in receipt of substantial grants-in-aid from the Government, are also required, as a condition, to adopt certain specific features of the reservation scheme in their establishments.

To give effect to the reservations, model rosters of 40 points each have been prescribed for direct recruitment by open competition on all-India basis and otherwise than open competition and promotions and 100 point roster for recruitment made on local and regional basis. If the vacancies in a service or cadre are too few for the purpose, all isolated posts are grouped together in direct recruitment. Annual statements are required to be submitted by the recruiting authorities for scrutiny by the government. For ensuring implementation of the special representation orders, liaison officers have been appointed in different ministries of the Union Government.

State governments have also framed rules for the reservation of posts for these classes and taken steps to increase their representation in the state services.

The representation of scheduled castes and scheduled tribes in Central Government services as on 1 January 1981 was as given in the table 9.2.

TABLE 9·2
SC/ST REPRESENTATION IN CENTRAL GOVERNMENT

Group (Class)	Total No. of Employees	Scheduled Castes	Percentage of Scheduled Castes to total	Scheduled Tribes	Percentage of Scheduled Tribes to total
A (Cl. I) . . .	52,773	2,883	5·46	590	1·12
B (Cl. II) . . .	62,955	5,298	8·42	824	1·31
C (Cl. III) . .	18,76,784	2,43,028	12·95	59,228	3·16
D (Cl. IV) . . . (excluding sweepers)	12,35,016	2,38,989	19·35	62,672	5·07
Total . . .	32,27,528	4,90,198	15·19	1,23,314	3·82

ALL INDIA SERVICES (AS ON 1 JANUARY 1982)

I.A.S. . . .	4,138	417	10·1	224	5·4
I.P.S. . . .	2,184	219	10·02	77	3·52

ADMINISTRATION OF SCHEDULED AND TRIBAL AREAS

Some areas have been scheduled in Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa and Rajasthan under Article 244 and the Fifth Schedule to the Constitution. Governors of the respective states submit a report annually to the President on the administration of the scheduled areas in their states.

The tribal areas in Assam, Meghalaya and Mizoram are administered subject to the provisions of the Sixth Schedule to the Constitution. Under the schedule, they are divided into autonomous districts. There are eight such districts namely, North Cachar Hills and Mikir Hills districts in Assam, United Khasi-Jaintia Hills, Jowai and Garo Hills districts in Meghalaya and Chakma, Lakher and Pawi districts in Mizoram. Each autonomous district has a district council consisting of not more than 30 members of whom not more

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than four can be nominated and the rest are to be elected on the basis of adult suffrage. The councils are vested with certain administrative, legislative and judicial powers.

WELFARE AND ADVISORY AGENCIES

The Union Ministry of Home Affairs is the nodal Ministry for overall policy, planning and coordination of programmes of development for scheduled castes and scheduled tribes. Each central ministry and department is the nodal ministry or department concerning its sector. The Ministry of Home Affairs maintains liaison with state governments and central ministries.

A commission for the scheduled castes and scheduled tribes consisting of a chairman and four members including the special officer appointed under Article 338 of the Constitution known as the Commissioner for Scheduled Castes and Scheduled Tribes, was set up in August 1978. The Commission is to investigate all matters relating to constitutional safeguards, reservation in public services, to study the implementation of the Protection of Civil Rights Act, 1955, with particular reference to the objective of removal of untouchability and invidious discrimination arising therefrom, and to ascertain the socio-economic and other relevant circumstances responsible for the commission of offences against persons belonging to scheduled castes and tribes with a view to recommend appropriate remedial measures.

Parliamentary Committee

The Government of India set up three parliamentary committees, the first in 1968, the second in 1971 and the third in 1973, to examine the implementation of the constitutional safeguards for the welfare of the scheduled castes and scheduled tribes. The committee has since been constituted as a standing committee of Parliament, the tenure of the members being one year. This committee consists of thirty members, twenty from the Lok Sabha and ten from the Rajya Sabha.

Welfare Departments in States

The state governments and union territory administrations have separate departments to look after the welfare of the scheduled castes and scheduled tribes and other backward classes. The administrative set-up varies from state to state. In Bihar, Madhya Pradesh and Orissa separate ministers have been appointed to look after tribal welfare as prescribed in Article 164 of the Constitution. Some other states have set up committees of members of state legislatures on the pattern of the parliamentary committee at the Centre.

All the states having scheduled areas as also Tamil Nadu and West Bengal have constituted tribes advisory councils as per provision in the Fifth Schedule to the Constitution to advise on such matters pertaining to the welfare and advancement of the scheduled tribes in the state.

Voluntar Organisation

A number of voluntary organisations also promote the welfare of the scheduled castes and scheduled tribes. Important organisations of all-India character are : Harijan Sevak Sangh, Delhi; Bharatiya Depressed Classes League, New Delhi; Ishwar Saran Ashram, Allahabad; Indian Red Cross Society, New Delhi; Hind Sweepers Sevak Samaj, New Delhi; Ramakrishna Mission, Narendrapur, West Bengal; Bharatiya Adimjati Sevak Sangh, New Delhi; Andhra Rashtra Adimjati Sevak Sangh, Nellore; Ramakrishna Mission, Cheerapunji, Ranchi,

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Puri, Silchar and Shillong; Thakkar Bapa Ashram, Nimakhandi, Orissa; Servants of India Society, Pune; and Social Work and Research Centre, Tilonia, Rajasthan.

The Government of India provide grants-in-aid to non-official voluntary organisations working among scheduled castes and scheduled tribes.

WELFARE SCHEMES

The welfare of scheduled castes and scheduled tribes is given special attention by both the Central and state governments. Special programmes for their welfare have been undertaken in the successive five year plans and the size of investment on these special programmes has been increasing from plan to plan as shown in table 9.3.

TABLE 9·3 EXPENDITURE DURING THE PLANS

(Rs in crore)

	Period	Expenditure
First Plan	1951—56	30·04
Second Plan	1956—61	79·41
Third Plan	1961—66	100·40
Annual Plans	1966—69	68·50
Fourth Plan	1969—74	172·70
Fifth Plan	1974—78	296·19
Sixth Plan	1980—85	
(Outlay)		
(i) Central Sector		240·00
(ii) State Sector		720·00
(iii) Special central assistance for sub-plans for tribal areas		470·00
(iv) Special central assistance for component plans for the development of scheduled castes		600.00

In addition, state governments have also been spending a sizeable amount from their non-plan budgets on the welfare of these classes.

LA N PROGRAMMES

Some of the important centrally-sponsored schemes being implemented are :

Coaching and Allied Scheme

With a view to improving the representation of the scheduled castes and scheduled tribes in various posts and services under Central/state governments and public sector undertakings, bank services, Life/General Insurance Corporation of India, pre-examination coaching centres have been set-up in various parts of the country for preparing scheduled caste and scheduled tribe candidates for various competitive examinations held by UPSC, State Public Service Commission and other recruiting bodies. The number of such centres sanctioned/established by the end of March 1983 was about 60.

Post-Matric Scholarships

The scheme of post-matric scholarships to scheduled castes and scheduled tribes is a very important scheme for the educational development of the scheduled castes and scheduled tribes. It was started in 1944-45 with the objective of providing financial assistance to the scheduled caste and scheduled tribe students studying at post-matriculation stages in different schools and colleges in the country, so as

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to enable them to complete their education. It has helped a large number of students to pursue higher education. Starting with a mere 114 awards to scheduled caste students in 1944-45 and 89 for scheduled tribes in 1948-49, the years of inception of the scheme for the two categories, the estimated number of awards to scheduled castes and scheduled tribes had reached 4.90 lakhs in 1979-80 5.65 lakhs in 1980-81, 6.55 lakhs in 1981-82 and approximately 7.50 lakhs in 1982-83. Keeping in view the rising cost of living and other factors, the rates for all courses have been revised. The income limits of parents/guardians/wards for eligibility of the scholarships have also been revised. Both these revisions are effective from 1 July 1981. From 1980-81, the employed students with a total income of Rs 750 per month are made eligible for the scholarships, restricted to reimbursement of compulsory non-refundable dues/fees, etc. Restrictive condition of scholarships to only two children of the same parents has also been relaxed in favour of girl students from 1980-81.

Girls' Hostels

Financial assistance is given to state and union territory administrations for the construction of new hostels and to expand existing ones at any place where the facilities for girls belonging to these classes are inadequate. An amount of Rs 13 crore has been provided for the scheme during the Sixth Plan.

Research and Training

The Central Government provide cent per cent financial assistance to reputed and competent organisations/institutions to undertake short duration, action-oriented studies on problems relating to the formulation, implementation and evaluation of programmes for economic, social and educational development of scheduled castes. The emphasis in such studies, however, is on the economic problems of these communities. The Research Advisory Committee of the Ministry of Home Affairs decides about the admissibility of grant-in-aid to the research agency for a specific study.

Book Bank Scheme

The scheme is for scheduled caste and scheduled tribe students studying in medical/engineering degree courses in the country so as to provide textbooks to those who can ill-afford expensive education without state support. An amount of Rs 5 crore has been provided for Sixth Plan.

Pre-Matric Scholarships

This scheme, started in 1977-78, is intended for the educational development of children who are engaged in the so-called 'unclean occupations viz., scavenging of dry latrines, tanning and flaying, studying in classes VI to X. A scholarship of Rs 145 per month is given to each student under the scheme. There is a provision of Rs 8 crore for this scheme during Sixth Plan.

STRATEGY FOR DEVELOPMENT OF SCHEDULED CASTES

A three-pronged strategy has been evolved to speed up the development of the scheduled castes :

(a) special component plans of the states and central ministries;

(b) special central assistance to the special component plans for the scheduled castes of the states; and

(c) scheduled castes development corporations in the states.

The special component plans envisage identification of schemes under general sectors of development which would be of benefit to

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the scheduled castes, quantification of funds from all divisible programmes under each sector and determination of specific targets as to the number of families which are to be benefited from these programmes under each sector. The overall objective is to assist scheduled caste families to substantially improve their income. The provision of basic services and facilities and of access to opportunities for social and educational development are also to be brought into the special component plans.

The details of the special component plans, outlays, etc., for the Sixth Plan and Annual Plan 1981-82, are given in table 9.4.

TABLE 9.4 SPECIAL COMPONENT PLANS

(Rs in crore)

Sl. No.	State/Union Territory	1980—85		1982-83	
		Total Plan Outlay	Special Component Plan Outlay	Total Plan Outlay	Special Component Plan Outlay
1.	Andhra Pradesh	3,100·00	338·72	605·00	62·67
2.	Assam	1,115·00	16·87	238·00	4·31
3.	Bihar	3,225·00	417·19	670·00	58·77
4.	Gujarat	3,680·00	258·46	760·00	17·52
5.	Haryana	1,800·00	177·85	320·00	24·68
6.	Himachal Pradesh	560·00	61·60	120·00	10·16
7.	Karnataka	2,265·00	342·20	475·00	65·39
8.	Kerala	1,550·00	110·00	275·00	15·59
9.	Madhya Pradesh	3,800·00	297·61	725·00	46·71
10.	Maharashtra	6,175·00	323·60	1,322·00	31·00
11.	Manipur	240·00	3·87	48·00	0·90
12.	Orissa	1,500·00	162·55	300·00	11·57
13.	Punjab	1,957·00	173·05	385·00	20·50
14.	Rajasthan	2,025·00	249·22	340·00	30·73
15.	Tamil Nadu	3,150·00	560·67	711·00	103·41
16.	Tripura	245·00	12·33	500·00	4·61
17.	Uttar Pradesh	5,850·00	597·32	1,132·00	121·00
18.	West Bengal	3,500·00	304·79	490·00	29·17
19.	Sikkim	122·00	0·87	25·41	0·41
20.	Delhi	800·00	56·67	200·00	11·92
21.	Chandigarh	100·75	3·31	23·77	0·99
22.	Pondicherry	71·55	12·16	19·19	2·60
23.	Jammu and Kashmir	—	—	168·00	0·86
24.	Goa, Daman and Diu	—	—	44·12	0·30
	Total	46,831·30	4,481·91	9,445·49	675·78

SPECIAL CENTRAL ASSISTANCE

The Central Government continued to provide special central assistance to the state special component plans for the scheduled castes during the year. The special central assistance is an additive to the state plan and programmes for scheduled castes and it does not follow the systematic pattern for special schemes. It is meant for the totality of the states' efforts for the development of the scheduled castes. The additionality, according to the states, from the assistance is to be used by them only for income-generating economic development schemes in conjunction with the outlays in their special component plans so as to assist the economic advancement of the maxi-

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mum possible number of scheduled caste families below the poverty line. The assistance is apportioned among the state governments and union territories taking into account facts like scheduled caste population, backwardness of the States and the efforts of the state governments.

The special central assistance has helped in motivating the state governments to put in larger outlays in their special component plans as would be seen from the table 9.5.

TABLE 9·5 CENTRAL ASSISTANCE

(Rs in crore)

YEAR	State Plan Outlay	SCP Outlay	Percentage	Special Central Assistance
1979-80	5,967·03	240·54	4·03	5
1980-81	7,140·31	547·84	7·67	100
1981-82	8,229·31	632·76	7·69	110
1982-83	9,445·49	675·76	7·15	120

Against the allocation of Rs 600 crore, SCA to the SCPs during the Sixth Plan, Rs 100 crore, Rs 110 crore and Rs 120 crore were released during 1980-81, 1981-82 and 1982-83 respectively.

SCHEDULED CASTES DEVELOPMENT CORPORATIONS

The scheduled castes development corporations in the states are envisaged to interface between scheduled caste families and financial institutions in respect of bankable schemes of economic development. The corporations also provide margin money loan-assistance to these families, thereby helping to increase the flow of funds from financial institutions to scheduled caste families.

These corporations have been set up in 17 states. Grants are given by the Central Government to the state governments for investment in the share capital of the corporations in the ratio of 49 : 51.

The table 9.6 shows the releases made so far.

TABLE 9·6 GRANTS FOR SCHEDULED CASTES DEVELOPMENT CORPORATIONS

(Rs in lakh)

Year	State Government contribution	Amount released by the Centre
1978-79	710·55	50·00
1979-80	703·16	1,224·00
1980-81	1,403·00	1,300·97
1981-82	1,367·56	1,332·87
1982-83	1,364·40	1,350·00

Based on the experience gained by these corporations and suggestions received from the state governments/central ministries, certain modifications were effected in the scheme during 1981-82. The corporations can now provide margin money loan-assistance for schemes with total non-recurring cost upto Rs 12,000 as against the earlier ceiling of Rs 6,000. The state governments are now eligible for grants-in-aid on a matching basis, for promotional activities, for the staff of the corporations for loan recovery/monitoring/evaluation/technical wings, subject to a ceiling of a certain percentage of the cumulative central assistance.

TRIBAL DEVELOPMENT

In the Fifth Plan, a new strategy for tribal development was evolved. According to the strategy areas having 50 or more per cent of tribal

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concentration were delineated and tribal sub-plans prepared in 19 states and union territories namely, Andhra Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal, Andaman and Nicobar Islands and Goa, Daman and Diu. Tribal sub-plan areas were delineated in Sikkim in August 1980. The states and union territories with predominant tribal population namely, Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and Lakshadweep and Dadra and Nagar Haveli were not included in the tribal sub-plan approach as their state plans are, in fact, plans for the development of the tribal people.

The broad objectives of the tribal sub-plan are (i) to narrow the gap between the levels of development of tribal areas and other areas, and (ii) to improve the quality of life of the tribal communities.

In order to achieve these objectives, elimination of all forms of exploitation of tribals particularly in land, money-lending, malpractices in the exchange of agricultural and forest produce was given high priority. The tribal sub-plans envisaged total physical and financial efforts for integrated development of the tribal areas. The investment in the sub-plan area flow from the state plan, central outlays from central ministries and departments, institutional finance and special central assistance. During the Fifth Plan, the outlay under special central assistance was Rs 120 crore. During the Sixth Plan, the outlay for special central assistance has been kept at Rs 470 crore.

The tribal sub-plan areas in 19 states and union territories are grouped into 180 integrated tribal development projects as operational units. During the Sixth Plan, tribal majority pockets, which have a total population of 10,000 and 50 per cent or more of tribal population, are also to be taken up and the modified area development approach as a part of the tribal sub-plan strategy. The concept of tribal sub-plan itself has been kept flexible and has been adopted to the local situation. Programmes undertaken include agriculture and allied sectors, irrigation, marketing and cooperation, education, etc. The most backward groups among the tribal primitive tribes are given special attention by preparing separate plans for them.

Tribal development has, from the beginning, been based on a two-pronged approach namely, (a) promition of developmental activities to raise their level of living and (b) protection of their interests through legal-administrative support. During the Sixth Plan, tribal development programmes will be so directed as to ensure flow of benefits to a targeted number of families to enable them to cross the poverty line.

Tribal Research Institutes

Tribal research and training institutes have been functioning in Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal. They have played a useful role in the formulation of tribal sub-plans, project reports, monitoring and evaluation, research studies and training of personnel.

BACKWARD CLASSES

The report of the Second Backward Classes Commission, headed by B. P. Mandal, which was submitted to Government on 31 December 1980 is under consideration.

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RELIEF AND REHABILITATION

Repatriates from Sri Lanka

Under the Indo-Sri Lanka Agreements of 1964 and 1974, the Government of India agreed to grant Indian citizenship and repatriate six lakh persons of Indian origin together with the natural increase in that number over a period of 17 years. Up to the middle of April 1983 about 4.12 lakh persons had arrived in India from Sri Lanka.

These families are being provided various relief facilities like cash doles, free meals, ration at subsidised rates, travel concessions, etc. They are also provided various rehabilitation facilities like housing, education and training, etc., and settlement in various plantation schemes, schemes of Repatriates' Bank, industrial schemes, land colonisation and agricultural schemes, small trades/business and projects of the Tamil Nadu State Farms Corporations. Some of them are also helped to secure employment in various public/private sector undertakings. Their resettlement has been confined mostly to four southern states.

Prime Minister's National Relief Fund

The Prime Minister's National Relief Fund was started in 1947. Up to the end of March 1983 public contributions to the fund amounted to about Rs 52.03 crore. Over Rs 28.13 crore were utilised in providing relief to people affected by natural calamities such as earthquakes, floods, cyclones, droughts, famines and fire. Relief was also given in the early stages to displaced persons from Pakistan.

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10 MASS COMMUNICATION

The term mass communication stands for dissemination of information, ideas and entertainment by the use of communication media. The media include those which use modern means of communication such as radio and television, film, the press, publications and advertising. In fact, they co-exist with important traditional media such as folk dance, drama and puppetry. In India, the Ministry of Information and Broadcasting has a large set-up of mass communication, with the regional and branch offices as well as mobile units, spread all over the country.

RADIO

Radio broadcasts started in India in 1927 with two privately owned transmitters at Bombay and Calcutta. The Government of India took them over in 1930 and started operating them under the name of Indian Broadcasting Service. In 1936, the name of service was changed to All India Radio (AIR)—since 1957 it is known as Akashvani—and it was made a separate department. AIR is now the biggest media organisation of the Ministry of Information and Broadcasting and its programmes are received by over two crore radio receiver sets in India. It is serving as an effective medium not only to inform and educate people but also to provide healthy entertainment. It is also helping to create a climate of opinion in which social change can take place and people could be involved in the process.

Broadcasting Network

All India Radio's network consisted of six radio stations in 1947. Now there are 86 stations including two Vividh Bharati/commercial centres, one at Chandigarh and the other at Kanpur. In addition, there are two auxiliary studio centres at Bhubaneswar and Shantiniketan. These cover all the important cultural and linguistic regions of the country. The programmes which are radiated from 162 transmitters, of which 126 are medium wave, cover 89.65 per cent of the population spread over 78.83 per cent area of the country.

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Music

Forty per cent of the total broadcasts of AIR constitutes music programmes, which include classical and light classical music, light music, folk, tribal and devotional music, film music as well as classical and light western music. AIR broadcasts several programmes both on the national network as well as various AIR stations, which aim at preserving and developing the musical heritage of the country. The music appreciation programmes and music lessons which are regularly broadcast from AIR stations go a long way in acquainting the younger generation with our classical traditions and help them to learn music through the Radio. AIR scouts new talent continuously through the regular music auditions as well as annual music competition. Young and promising artists of higher grades are regularly featured in public concerts as well as zonal hook-up programmes.

Music was largely under the patronage of princely courts during the pre-Independence days. With the abolition of princely states after 1947, the task of preserving the musical heritage and developing classical music was taken over by AIR. With this objective AIR started, way back in the fifties the national programmes as well as the annual music festival—the Radio Sangeet Sammelan. Over the years these programmes have stood the test of time and are very popular both among artists as well as the listeners. These prestigious programmes are looked forward to by the public.

AIR has also paid equal attention to the preservation of folk music and development of light music. The monthly national programme of regional and light music brings to the listeners the best of folk, tribal, devotional and light music from all the regions in the country. Besides this, the AIR stations broadcast sizeable chunks of folk and light music in their programmes.

One of the significant achievements of AIR's national programmes is integration through the interaction of the two major styles of Indian music, the Hindustani and the Karnatak. Eminent artists as well as the most promising younger artists in both the styles are presented in these programmes which are broadcast on the national network. This, has created a mutual appreciation and enjoyment of the Hindustani music in the south and the Karnatak music in the north. Even during Radio Sangeet Sammelan a few Hindustani music concerts are arranged in the southern region and a few Karnatak music concerts in the northern region.

Another important milestone which was also started in 1952 the National Orchestra known as AIR *Vadya Vrinda.* The orchestra consisting of both Hindustani and Karnatak musicians which was first started at Delhi has done remarkable experiments in orchestration of Indian music and has a wide repertoire of a variety of compositions based on traditional *ragas* and folk melodies. The second orchestral unit which consists mainly of Karnatak musicians is at present working in Madras station. Occasionally both the units are giving combined performances.

In order to revive community singing and to inculcate a sense of integration among the masses and the younger generation choral groups were constituted first in the four zonal stations of Delhi, Bombay, Madras and Calcutta. They have now been extended to 19 stations. With the objective of developing production of light music, special provision has been made in 15 stations to record light music of a very high order which would ultimately reduce the dependence of AIR on film music.

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Some of the major musical festivals held in different parts of the country are also noticed by AIR. Excerpts from the music concerts presented at these festivals are broadcast from AIR stations in the regions and two of the most important festivals, the Tansen festival and Thyagaraja festival are broadcast in the national programme also.

Another important activity is the commercial release of archival music of old masters through gramophone records and cassettes. Till date 31 items have been released and a few more are under consideration.

Western music is being broadcast from 16 stations, some of them as a part of the youth programmes. These programmes bring to the listeners not only the Western music artists of the country but also the best of selections from all over the world.

Plays and Features

Each station broadcasts at least two plays every week. Besides original plays, radio adaptation of outstanding stage plays, novels and short stories are also broadcast. Outstanding plays in Indian languages are broadcast in the national programme of plays which was started in 1956. A series of monthly chain-plays is also broadcast. Under this, 12 model-plays are produced in a year and circulated amongst major stations. Humorous plays/skits are also broadcast on the entire network of Vividh Bharati.

The national programme of features, started in 1956 focusses attention on matters of national importance and interest—in the political, economic, social or cultural spheres. The original script may be in English or Hindi but is invariably translated into regional languages and is broadcast from all the regional stations. Another series entitled *Apni Dharti Apna Desh* (feature on states and union territories) has also been included since November 1980.

News and Current Affairs

The News Services Division of All India Radio attempts comprehensive and speedy coverage of news and views through its news bulletins, commentaries and discussions on current affairs. Besides noticing major trends in political, economic, social cultural and scientific fields, it gives adequate attention to parliamentary proceedings, rural development and sports activities. In its News Services, All India Radio puts out every day from Delhi 68 national bulletins in 19 languages for a duration of 10 hours 15 minutes. In the regional services, 123 regional bulletins, including three from Delhi are broadcast daily in about 60 languages and dialects for a duration of about 16 hours 25 minutes. In the External Services, 63 bulletins in 24 languages are put out every day from Delhi, Calcutta, Bombay and Madras for a duration of about 8 hours 30 minutes. Special news bulletins carrying world news, sports news and state and development news and slow speed bulletins in English and Hindi are broadcast. A weekly news bulletin of *human interest* stories in Hindi and other Indian languages and a daily press round up in English and Hindi were started in 1977. A special bulletin for persons going on *Haj* pilgrimage is also broadcast.

When Parliament is in session, daily commentaries in English and Hindi reviewing the day's proceedings in both the Houses are broadcast. Weekly commentaries in English and Hindi were introduced in 1977. Daily and weekly review of state legislatures are broadcast from state capitals in languages concerned. Commentaries by specialists in various fields and scripts from AIR's correspondents are broadcast in English, Hindi and Urdu in the programmes called Spotlight, *Samayaki*

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and *Tabsara* respectively. In the Current Affairs programme every Sunday, specialists take up live issues for indepth discussion. Eye witness accounts, interviews with important persons and reactions of the commonman to the happenings around him are presented through radio newsreel, both in English and Hindi.

A major part of the news broadcast by AIR comes from the AIR correspondents. AIR has a corps of both full time and part-time correspondents posted both in India and abroad.

Apart from the above, News Services Division has a monitoring unit at Ayanagar in New Delhi. This Unit alongwith monitoring unit attached with the General News Room monitor 144 transmissions daily from various foreign broadcasting organisations, in nine foreign and five Indian languages. The monitoring services of AIR are an important source of news and many a time it takes AIR much ahead of newspapers in giving news about world happenings.

External Services

The broadcasts in the external services of All India Radio aim to project a true and objective image of the country to listeners abroad and to explain the country's point of view on matters of national and international importance. The broadcasts also attempt to acquaint foreign listeners with the ideas and achievements of India as an open society and its secular ideals and to stimulate interest in the rich heritage of our art, culture and traditions and to highlight the progress achieved in different spheres of life. They are also designed to serve as a link with the people of Indian origin living or settled abroad.

The external services are put out in 25 languages-17 foreign and 8 Indian —for 56 hours and 45 minutes everyday, reaching listeners in several widely scattered regions of the world.

Vividh Bharati and Commercial Service

Popular entertainment programme, known as Vividh Bharati, is broadcast from 31 centres, including two short wave transmitters at Bombay and Madras for a total duration of 12 hours and 45 minutes on weekdays and 13 hours and 15 minutes on Sundays and holidays. Film music, humorous skits, short plays and features are presented in these programmes.

Commercial broadcasting on the radio introduced on 1 November 1967 from Bombay-Nagpur-Pune, on an experimental basis, is at present carried by 28 centres. Advertisements are accepted in any language as tape-recorded 'spots' of 7,10,15,20 and 30 seconds duration. Sponsored programmes were introduced in May 1970. From 1 April 1982 commercials have been introduced on a limited experimental scale on the primary channel with advertisements being allowed for a minute each before the national news bulletin in Hindi in the morning and evening and after the English news bulletin in the morning and evening.

Programmes for Special Audiences

The programmes for special audiences and occasions include those for the armed forces, women and children, the youth, students, rural and tribal people and industrial workers. Fourteen AIR stations broadcast daily programmes for the armed forces, while 55 stations present programmes twice a week in regional languages for women with objective of providing entertainment and imparting information on household topics.

Family welfare programmes are planned and produced by 36 family welfare units at various stations of AIR. Almost all stations

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broadcast family welfare and health programmes in a general way. These programmes are integrated with the general programmes as well as those meant for special audience like rural, women, youth and industrial workers.

Almost all AIR stations broadcast programmes specially for rural listeners for about 30 to 75 minutes every day. In addition, a daily programme on hard-core agriculture is broadcast for 45 to 55 minutes from 64 farm and home units located in different stations.

AIR stations broadcast weather bulletins every day for the farming community. Thirty-one stations broadcast a special programme called the 'Farm School on the AIR' where instructions and guidance on farming is provided to listeners.

Programmes consisting of both music and spokenword are put out in more than 146 tribal dialects for the *adivasis* from various stations.

Yuvavani and School Broadcast

Programmes for youth in *Yuvavani* are broadcast from 74 AIR stations. This service provides a forum to the youth for the age group 15-30, to present their viewpoint by participating in a wide range of programmes—talks, discussions, interviews, plays, features and music. A youth news bulletin is also broadcast by the youth themselves. In addition, various AIR stations broadcast programmes of varying duration and frequency in different languages for the youth.

For students in school, most of the AIR stations broadcast programmes based on the school curriculum to reach students in the interior areas. There are about 70,000 schools equipped with radio sets in the country. Radio support to university correspondence degree courses is also provided by several stations.

Audience Research

The audience research unit undertakes regular surveys and analyses of listener's reactions to the programmes broadcast on the AIR and Doordarshan network. It provides data on popularity ratings of the programmes, audience size, reach and coverage, reception quality, etc., for main as well as for commercial channels. For commercial channels it helps in determining the rates of spots and sponsored programmes. It also undertakes feed forward surveys to provide basic information about the audience and the potential for programme coverage when a new AIR station or TV centre is started.

Transcription and Programme Exchange

The transcription and programme exchange service of AIR helps different stations to receive and exchange outstanding programmes, transcribes the speeches of eminent personalities and maintains the Library of Sound Archives.

The Archives Library, set up in 1954, collects and preserves on a permanent basis the recorded speeches of President, Vice-President and Prime Minister. Voice recordings of eminent Indian and foreign personalities have been preserved. The Archives has the unique privilege of having recorded the voice of Mahatma Gandhi for over 50 hours. The library has about 3,000 tape recordings of Jawaharlal Nehru's speeches and about 2,800 of Prime Minister Indira Gandhi's speeches.

Among other valuable items preserved are : (i) recitations from the *Vedas* in Sanskrit in the traditional style, (ii) poetry recitations by eminent poets in Hindi and other languages, (iii) recitals by old masters of music, both Hindustani and Karnatak, (iv) selected items

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of music by eminent musicians, representing different *gharanas,* (v) representative pieces of folk music, devotional music and stage songs, and (vi) recordings of freedom fighters.

Over 2,000 hours of music of great masters—both Hindustani and Karnatak, and folk and regional music—have been preserved so far and special effort is being made to collect rare and old recordings of master musicians.

Extensive use of archival material is being made by AIR for preparation of different categories of national programmes. The Delhi station of AIR has been broadcasting since April 1974, a weekly programme entitled *Chayan* for one hour on Sundays based on recordings available in the Archives. A similar weekly programme of half an hour entitled *Sanchayita* is broadcast from *Yuvavani* service.

The programme exchange unit of this service circulates recordings and scripts received from AIR stations and foreign broadcasting organisations. All national programmes—music, plays, features, talks/interviews and discussions are circulated among the stations. Contributions from about 50 foreign broadcasting organisations are received, processed and circulated to AIR stations.

Programme Journals

All India Radio brings out eight programme journals. These are *Akashvani* (English), *Akashvani* (Hindi) and *Awaz* (Urdu) published from Delhi, *Betar Jagat* (Bengali) from Calcutta, *Akashi* (Assamese) from Guwahati, *Vanoli* (Tamil) from Madras, *Vani* (Telugu) from Vijayawada and *Nabhovani* (Gujarati) from Ahmedabad. *Akashvani* (English) is a weekly, while others are fortnightlies. The External Services Division of AIR also brings out quarterly programme folders intended for the overseas listeners, one each in Arabic, Burmese, Chinese, French, Indonesian, Nepali, Persian, Pushtu, Swahili and Tibetan. It also brings out a monthly journal *India Calling* in English.

TABLE 10.1
NUMBER OF BROADCAST RECEIVER LICENCES (1981)

Circle	Radio	Television
Andhra Pradesh	5,49,291	33,962
Bihar	3,11,262	1,062
Delhi	4,30,323	3,52,829
Gujarat	9,77,296	17,191
Jammu and Kashmir	3,219	3,262
Kerala	8,06,304	72
Karnataka	7,15,885	17,314
Maharashtra	15,26,075	4,84,582
Madhya Pradesh	2,95,023	3,475
North East (Shillong)	1,31,360	583
North West (Ambala)	8,53,372	2,59,917
Orissa	1,23,134	1,005
Rajasthan	4,13,046	27,900
Tamil Nadu	13,65,514	1,47,329
Uttar Pradesh	7,46,329	1,58,669
West Bengal	9,01,304	1,60,613
Army Postal Services	29,815	2,863
Total	1,01,78,552	16,72,627

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TABLE 10·2
NUMBER OF LICENCES IN EACH TV KENDRA (1982)

Transmitter	Number of TV Licences	Remarks
Main Kendras/Relay Centres/Rural Transmitters		
1. Delhi	4,30,887	
2. Mussoorie	94,565	
3. Bombay	4,86,598	
4. Pune	70.915	
5. Calcutta	2,37,445	
6. Lucknow	87,350	
7. Kanpur		
8. Madras	2,22,500	
9. Jalandhar	2,31,936	
10. Amritsar		
11. Srinagar	18,381	
12. Pij-Ahmedabad	24,486	
13. Jaipur	28,767	
14. Raipur	4,084	
15. Muzaffarpur	1,214	
16. Hyderabad	43,785	
17. Gulbarga	455	
18. Sambalpur	3,141	As on 30 April 1983
19. Bangalore	61,832	
20. Nagpur	10,378	
21. Panaji	2,008	
Sub-Total	20,607,27	
Low Power Transmitters		
22. Malda	314	
23. Deoria	233	
24. Shimla	4,945	
25. Jammu	9,827	
26. Suratgarh	2,450	Relates to Sriganganagar Head Office
27. Bhopal	118	
28. Indore	500	
29. Patna	2,213	
30. Kakinada	1,301	
31. Trivandrum	2,266	
32. Bhubaneswar	2,352	As on 30 April 1983
33. Guwahati	1,485	
34. Imphal	127	
35. Kohima	49	
36. Agartala	968	
37. Shillong	750	
38. Itanagar	167	
39. Aizwal	Not available	
40. Gangtok	18	
41. Port Blair	227	
Sub-Total	34,810	
Grand Total	20,95,537	

Notes :—1. The figures are provisional till such time final data is released by DG P&T.

2. The data has been compiled on the basis of the data received from Audience Research Officers posted at main Doordarshan Kendras and Engineering Officers posted at LPTs.

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DOORDARSHAN

Television was introduced in India as on experimental TV Service and was launched in Delhi on 15 August 1959. A number of TV centres, namely, Bombay, Srinagar, Jalandhar, Calcutta, Madras and Lucknow came into existence from 1972 onwards in quick succession. The next spurt was witnessed on the eve of Ninth Asian Games, *i.e.* in November 1982 when 20 low power transmitters were installed at different state capitals and important towns (in addition Panaji also started relaying Bombay's programme). So in all presently there are 41 transmitters.

Television now covers more than 12.50 crore people (19.1 per cent of the total population) spreading over an area of 2,21,790 sq km (6.8 per cent of the total area) of the country. The urban population covered is about 5.70 crore and the rural 6.80 crore.

On 1 April 1976 Television was delinked from All India Radio, given the name Doordarshan and made a full-fledged Directorate of the Ministry of Information and Broadcasting. Like All India Radio it is headed by a Director General.

Network

Doordarshan has a network of 41 transmitters *i.e.*, 7 main centres (Doordarshan Kendras) with 6 relay centres, 3 Upgrah Doordarshan Kendras with 8 transmiting centres for rural coverage and 20 towns with low power transmitters.

TABLE 10·3 TV NET WORK

Full-fledged TV Centres	Relay Centres	Upgrah Kendras	Doordarshan	Low Power Transmitters.
Delhi	Mussoorie		Jaipur	Kakinada
Bombay	Panaji	Delhi	Muzaffarpur	Bhubaneswar
Madras	Pune		Raipur	Guwahati
				Imphal
Calcutta	Bangalore			Kohima
Srinagar	Amritsar	Cuttack	Sambalpur	Agartala
				Shillong
Jalandhar	Kanpur			Itanagar
Lucknow			Hyderabad	Aizawl
				Patna
		Hyderabad	Gulbarga	Bhopal
			Pij (Ahmedabad)	Shimla
				Gangtok
				Suratgarh
			Nagpur	Jammu
				Port Blair
				Deoria
				Indore
				Malda
				Trivandrum

National Programme

National programme started from 15 August 1982 from all the transmitters of Doordarshan. The basic idea is to give a common television programme to the entire country to create awareness about the national problems and solicit people's participation in social change and economic development in the country. The emphasis in this programme is on national integration, communal harmony, family welfare programmes, cultural heritage of music and dance, struggle of independence and science programmes besides current affairs and news.

INAST

The Indian National Satellite (INSAT IB) was launched on 30 August 1983 and is fully operational from 15 October 1983.

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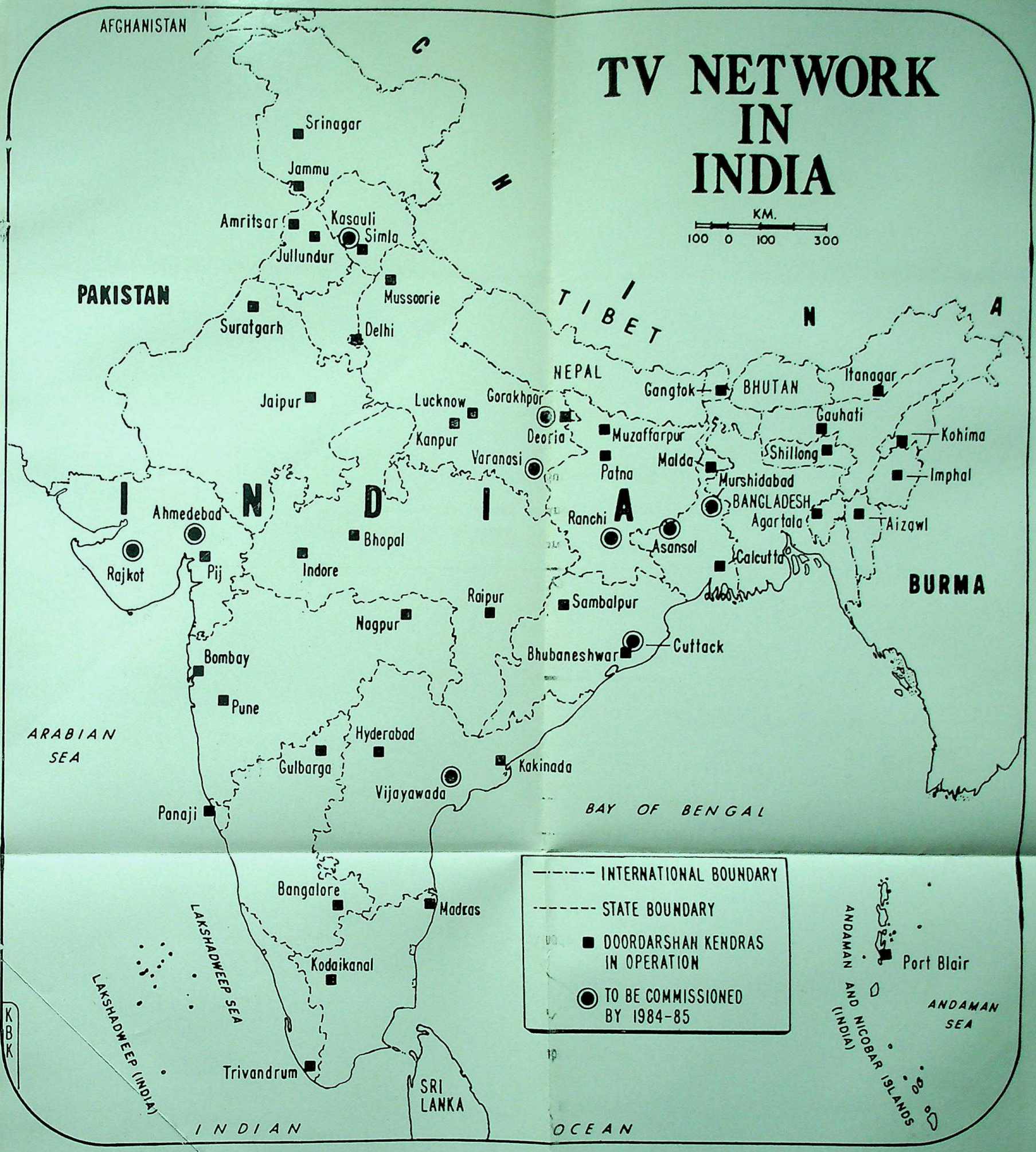
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TV NETWORK IN INDIA



The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

Based upon Survey of India map with the permission of the Surveyor General of India.

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TABLE 10·4

COVERAGE OF DOORDARSHAN CENTRES

MAIN DOORDARSHAN KENDRAS AND RELAY CENTRES

Sl. No.	Centre	Date of Inauguration	Power of Transmitter (kilowatt)	Band/ Channel of operation	Height of Mast (metre)	Service Range (km)	Area covered (sq km)	Population (in lakh)			Villages covered
								Urban	Rural	Total	
1.	Delhi	15 Sept. 1959	10	I/4	100	68	14,300	73·06	26·89	99·85	2,523
2.	Bombay	2 Oct. 1972	10	I/4	300	70—100	10,300	93·70	46·19	139·89	2,500
3.	Srinagar	26 Jan. 1973	10	I/4	122	30—70	4,000	6·50	25·00	31·50	2,600
4.	Amritsar	29 Sept. 1973	10	III/7	100	65	8,400	8·00	15·57	23·57	1,600
5.	Pune	2 Oct. 1973	0·6	III/5	100	52—90	15,000	20·67	32·12	52·79	1,400
6.	Calcutta	9 Aug. 1975	10	I/4	175	75	17,000	91·25	106·14	197·39	7,500
7.	Madras	15 Aug. 1975	10	I/4	175	80	12,000	47·24	27·80	75·04	2,100
8.	Lucknow	27 Nov. 1975	10	I/4	100	60	11,300	11·30	57·72	69·02	5,000
9.	Mussoorie	12 Aug. 1977	10	III/10	91	165	29,200	30·59	111·32	141·91	9,700
10.	Kanpur	12 Jan. 1979	10	III/5	150	75	9,500	16·05	28·30	44·35	2,700
11.	Jalandhar	13 Apr. 1979	10	III/5	200	80	14,000	18·20	46·20	64·40	4,600
12.	Pij	1 Aug. 1976	1	III/7	100	40	5,000	12·25	9·37	21·62	700
13.	Jaipur	1 Mar. 1977	10	III/5	100	90	25,400	15·62	49·39	64·01	4,400
14.	Raipur	10 May 1977	1	III/5	100	40	5,000	4·80	7·60	12·40	400
15.	Gulbarga	3 Sept. 1977	1	III/7	100	40	5,000	2·60	6·44	9·04	300
16.	Hyderabad	23 Oct. 1977	10	I/4	150	75	17,000	28·62	25·47	54·09	1,600
17.	Sambalpur	30 Apr. 1978	1	III/7	100	40	5,000	1·19	6·17	7·36	650
18.	Muzaffarpur	14 June 1978	1	III/6	100	40	5,000	2·48	39·15	41·63	1,600
19.	Bangalore	9 Nov. 1981	1	III/5	20	22	1,500	29·38	2·20	31·58	297
20.	Nagpur	15 Aug. 1982	1	III/7	25	25	1,950	12·98	2·19	15·17	319
21.	Panaji	19 Nov. 1982	1	III/7	25	20	720	1·13	1·49	2·62	78
	Total						2,16,270	527·61	671·72	1,199·33	52,567

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COVERAGE OF DOORDARSHAN CENTRES

LOW POWER TRANSMITTERS

Sl. No.	Centre	Power of Transmitter (watts)	Service Range (km)	Area covered (sq km)	Population (in lakh)		
					Urban	Rural	Total
1.	Trivandrum	100	10	300	5·20	1·98	7·18
2.	Bhubaneswar	100	10	300	2·20	0·12	2·32
3.	Guwahati	100	10	300	2·72	0·90	3·62
4.	Imphal	100	10	300	1·56	0·82	2·38
5.	Kohima	100	10	300	0·36	0·13	0·49
6.	Agartala	100	10	180	1·31	0·42	1·73
7.	Shillong	100	10	300	1·73	0·18	1·91
8.	Itanagar	100	10	300	0·15	0·04	0·19
9.	Aizwal	100	10	300	0·76	0·05	0·81
10.	Patna	100	10	300	9·16	1·33	10·49
11.	Bhopal	100	10	300	6·72	0·16	6·88
12.	Shimla	100	10	300	0·70	0·24	0·94
13.	Gangtok	100	10	300	0·37	0·29	0·66
14.	Suratgarh	100	10	300	0·30	0·19	0·49
15.	Jammu[1]	100	10	300	2·10	0·31	2·41
16.	Port Blair	100	10	160	0·50	0·03	0·53
17.	Kakinada	100	10	180	2·27	0·40	2·67
18.	Deoria	100	10	300	0·56	1·81	2·37
19.	Indore	100	10	300	8·27	0·30	8·57
20.	Malda	100	10	300	0·93	1·52	2·45
	Total			5,520	47·87	11·82	59·09

[1]Provisional Census Figures

Note : Total population covered by Doordarshan Centres = 1258·42 (lakh)
Percentage of coverage to total population = 19·1 per cent
Total area covered by Doordarshan Centres = 2,21,790 sq km
Percentage of coverage to total area = 6·8 per cent

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INSAT has capabilities for long distance telephony, data transmission, nation wide direct television transmission and continuous meteorological earth observations. INSAT television has two distinct features—direct telecast and national networking using existing terrestrial transmitters. Specific clusters in six states—Andhra Pradesh, Bihar, Gujarat, Maharashtra, Orissa and Uttar Pradesh have been selected on the basis of backwardness of areas, availability of suitable infrastructure and utilization of existing television facilities.

Under his scheme, 2,000 DR (Direct Relay) sets and 2,000 VHF (Very High Frequency) sets (in addition to the existing areas) will be installed in specially identified villages for community viewing in the above mentioned states.

Video Cassette Recorders

Government have decided to impose licence fee for using Video Cassette Recorders equipped with RF turner sections (VHF/UHF) and or the monitor which are capable of receiving broadcast programmes. Persons possessing Video Cassette Recorders are supposed to have domestic or commercial licence according to the purpose for which the set is being used. This licence policy will come into force with effect from 1 November 1983.

THE PRESS

The Registrar of Nawspapers for India, appointed under the provisions of the Press and Registration of Books (Amendment) Act, 1955, prepares an annual report on the press, which is presented to Parliament. The Registrar also allots newsprint and recommends import of printing machinery for newspapers.

The number of newspapers stood at 19,144 at the end of 1981 as compared to 18,140 in 1980, showing an increase of 1,004 newspapers during the year. Out of the total number of newspapers published in the country, 5,767 (30.1 per cent) were brought out from the four metropolitan cities of Delhi, Bombay, Calcutta and Madras.

Out of 19,144 newspapers, 1,264 were dailies, 98 tri/bi-weeklies, 5,624 weeklies and 12,158 other periodicals. State-wise, Uttar Pradesh had the largest number of newspapers (2,702), followed by Maharashtra (2,560), Delhi (2,395), West Bengal (2,115), Tamil Nadu (1,216), Andhra Pradesh, (1,068), Rajasthan (1,031) and Kerala (1,003). Other states which had more than 500 newspapers were Karnataka (943), Madhya Pradesh (691), Gujarat (652) and Punjab (600).

The largest number of dailies (178) published from Uttar Pradesh and smallest (one) appeared from Himachal Pradesh and Meghalaya. Table 10.5 shows the state and periodicity-wise details of the number of newspapers at the end of 1981.

TABLE 10·5 NUMBER OF NEWSPAPERS (STATE AND PERIODICITY-WISE) 1981

State/Union Territory	Dailies	Tri/Bi-weeklies	Weeklies	Others	Total
Andhra Pradesh . .	62	2	377	627	1,068
Assam	6	4	66	89	165
Bihar . . .	43	4	304	263	614
Gujarat . . .	36	2	165	449	652
Haryana . . .	12	—	134	222	368
Himachal Pradesh .	1	—	21	55	77
Jammu and Kashmir .	25	—	111	38	174
Karnataka . . .	105	4	213	621	943
Kerala . . .	103	2	135	765	1,005

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State/Union Territory	Dailies	Tri/Bi Weeklies	Weeklies	Others	Total
Madhya Pradesh	102	9	357	223	691
Maharashtra	166	25	642	1,727	2,560
Manipur	30	2	3	40	75
Meghalaya	1	4	23	22	50
Nagaland	—	—	4	2	6
Orissa	11	—	40	262	313
Punjab	34	1	210	355	600
Rajasthan	87	3	414	527	1,031
Tamil Nadu	104	6	147	959	1,216
Tripura	13	1	42	11	67
Uttar Pradesh	178	18	1,342	1,164	2,702
West Bengal	57	7	464	1,587	2,115
Arunachal Pradesh	—	—	—	—	—
Andaman and Nicobar Islands	4	—	5	8	17
Chandigarh	11	—	33	123	167
Dadra and Nagar Haveli	—	—	1	—	1
Delhi	48	2	342	1,933	2,325
Goa, Daman and Diu	8	—	9	30	47
Lakshadweep	—	—	—	—	—
Mizoram	17	1	14	12	44
Pondicherry	—	1	6	44	51
Total	1,264	98	5,624	12,158	19,144

A language-wise study of newspapers shows that the largest number (5,329) was published in Hindi, followed by (3,583) in English, (1,463) Bengali, (1,299) Urdu and (1,098) Marathi. Other languages which claimed more than 500 newspapers were : Tamil (804), Malayalam (766), Gujarati (696), Kannada (611) and Telugu (546). Bi-lingual numbered 1,506. Table 10.6 shows publication of newspapers language-wise at the end of 1981.

TABLE 10·6
NUMBER OF PAPERS (LANGUAGEWISE)

Language	Dailies	Tri/Bi Weeklies	Weeklies	Others	Total
English	105	8	407	3,063	3,583
Hindi	409	26	2,432	2,462	5,329
Assamese	3	2	23	43	71
Bengali	41	8	387	1,027	1,463
Gujarati	39	3	165	489	696
Kannada	77	3	145	386	611
Kashmiri	—	—	1	—	1
Malayalam	101	2	115	548	766
Marathi	120	17	361	600	1,098
Oriya	10	—	31	214	255
Punjabi	22	1	159	225	407
Sanskrit	2	—	4	24	30
Sindhi	4	—	20	38	62
Tamil	99	4	121	580	804
Telugu	31	1	149	365	546
Urdu	128	7	637	527	1,299
Bilingual	31	12	345	1,118	1,506
Multilingual	8	1	68	273	350
Others	34	3	54	176	267
Total	1,264	98	5,624	12,158	19,144

Circulation of Newspapers

The data available for 1981 shows that the newspapers had a circulation of 511.02 lakh copies as compared to 509.21 lakh in 1980. The circulation of dailies in 1981 was 152.55 lakh copies as compared to 145.31 lakh in 1980. Out of 7,056 newspapers for which the publishers supplied circulation data, 6,525 claimed a circulation of up to 15,000 copies per publishing day (small newspapers) and had

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a combined circulation of 200.90 lakh or 39.3 per cent of the total. Another 354 newspapers having circulation between 15,001 and 50,000 copies (medium newspapers) claimed a combined circulation of 97.12 lakh or 19 per cent. However, 177 newspapers, having circulation of more than 50,000 copies (big newspapers) together accounted for 213 lakh or 41.7 per cent of the total circulation of all the newspapers in India.

Newspapers in Hindi had the highest circulation of 139.84 lakh copies in 1981 compared to 137.09 lakh in 1980. Newspapers in English also fared better with a total circulation of 110.39 lakh copies in 1981 as against 105.32 lakh copies in 1980. Other major language newspapers having a circulation of 10 lakh and above were : Tamil 45.02 lakh, Malayalam 41.27 lakh, Bengali 32.99 lakh, Gujarati 25.40 lakh, Marathi 28.83 lakh, Urdu 22.54 lakh, Telugu 15.56 lakh, Kannada 18.88 lakh and Punjabi 10.28 lakh. Among the principal languages, Sanskrit newspapers had the lowest circulation (11,000 copies). The language and periodicity-wise break-up of the total circulation in 1981 is given in table 10.7.

TABLE 10·7 CIRCULATION OF NEWSPAPER (LANGUAGE AND PERIODICITY WISE IN 1981)

(in '000)

Language	Dailies	Tri/Bi-Weeklies	Weeklies	Others	Total
Hindi	3,684	32	4,672	5,596	13,984
English	3,355	7	1,849	5,828	11,039
Assamese	62	41	90	56	249
Bengali	1,059	6	927	1,307	3,299
Gujarati	1,145	4	680	711	2,540
Kannada	556	4	661	667	1,888
Kashmiri	—	—	—	—	—
Malayalam	1,386	—	1,481	1,260	4,127
Marathi	1,399	17	647	820	2,883
Oriya	178	—	26	211	415
Punjabi	231	—	447	350	1,028
Sanskrit	2	—	5	4	11
Sindhi	20	—	5	13	38
Tamil	956	2	2,050	1,494	4,502
Telugu	439	11	508	598	1,556
Urdu	734	8	891	621	2,254
Bilingual	32	8	310	670	1,020
Multilingual	6	2	37	132	177
Others	11	—	34	47	92
Total	15,255	142	15,320	20,385	51,102

Newspapers owned by joint stock companies commanded a circulation of 196.12 lakh (38.4 per cent) copies, while newspapers owned by individuals claimed a circulation of 185 19 lakh (36.2 per cent) copies. Table 10.8 gives the circulation data and ownership pattern of the newspapers.

TABLE 10·8 OWNERSHIP PATTERN

Form of Ownership	1981		
	Number of papers[1]	Circulation ('000)	Percentage to total circulation
Individual	4,186	18,519	36·2
Joint Stock Companies	453	19,612	38.4
Firms/Partnerships	361	4,268	8·4
Societies/Associations	1,427	4,393	8·6
Government (Central and State)	205	1,297	2·5
Others	424	3,013	5.9

1. Represents newspapers whose circulation data were available.

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Newspri nt

The requirements of newsprint for newspapers and periodicals in the country are met through indigenous production of the National Newsprint and Paper Mills at Nepa Nagar in Madhya Pradesh and through imports. The total indigenous production for 1981-82 was 55 thousand tonnes. Total requirement of newsprint was 3.72 lakh tonnes for 1981-82.

The newsprint policy for 1981-82 (announced on 28 April 1981) provided a growth rate of five per cent for big papers over the consumption of newsprint or white printing paper by individual newspapers during 1980-81. The growth admissible to medium and small papers was 7 per cent. However, newspapers were allowed to obtain additional newsprint quota on the basis of their higher performance.

Newsprint Advisory Committee

A Newsprint Advisory Committee, first set up in July 1964, advises the Government on the import and allocation policy for newsprint and printing machinery. The committee was reconstituted in 1982. It meets ordinarily twice a year.

PRESS INFORMATION BUREAU

The Press Information Bureau (PIB) is the central agency of the Government of India for informing the people about its policies and programmes. The information put out by the Bureau on behalf of the Government goes to dailies as well as periodicals, news agencies and Radio and Television organisations, both Indian and foreign. With its countrywide teleprinter network and air bag facilities, newspapers not only in Delhi but also in other parts of the country benefit from PIB's services.

PIB as the main channel of communication between the Government and the media functions upon the basic premise that a democratic government must ensure that its policies and activities are properly presented and interpreted to the public on whose support and goodwill it holds office. The main functions thus devolving on PIB are to arrange publicity for the Government policies, programmes and activities, feed back on how these policies and activities are received and lastly to advise the Government on its information policy.

To perform these functions, officers of the Bureau are attached to all the ministries and departments of the Government of India at its headquarters. These officers are in daily contact with their respective ministries and departments. They perform the triple role of being the spokesman of the Government explaining and interpreting its policies and disseminating factual information of public reaction evaluator, keeping Government in touch with public opinion, and of adviser to the Government on its information policy. The Information Officers also maintain continuous liaison with newspaper editors, correspondents and other editorial staff as well as representatives of other mass media.

The Bureau employs a variety of means to put out information about Government policies and programmes through the media.

Press releases account for a substantial part of the written material issued by the Bureau. They include press communiques, press notes and handouts. Backgrounders, features and newsletters are also put out.

The material issued by PIB is in English, Hindi and 16 other languages.

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In addition to release of written material, the Bureau arranges press conferences and briefings to enable media representatives to get the news and clarifications at first hand.

Pictorial Service

To enable newspapers to supplement their written word coverage by pictures, the Bureau supplies a large number of photographs dealing with the activities of the Government to dailies and periodicals all over the country.

To help small and medium newspapers, which have no facilities to make their own blocks, ebonoid blocks are supplied. *Charbas* are supplied to Urdu newspapers for their litho process use.

Accreditation

The Bureau provides professional facilities to correspondents and cameramen accredited to the Government of India. As on 24 December 1982, a total of 699 correspondents, cameramen and technicians were accredited. Thirtyfour foreign countries have correspondents resident in Delhi. Temporary accreditation facility is extended to foreign correspondents/cameramen who come to India on short visits. Special accreditation arrangements are made for important events.

Conducted Tours

To make the people aware of the special problems and the development work being carried on in backward, tribal and hill areas, the Bureau conducts press parties to such areas. This enables newsmen to see for themselves the work being done by the Government for the development of such areas. Under this scheme, press parties are also taken from remote, tribal and backward areas to Delhi and other developed parts of the country so that it helps people in such areas to develop a sense of national integration.

The Bureau is the implementing agency for exchange of visits of journalists between India and several foreign countries under cultural exchange programmes and protocols.

Regional and Branch Offices

To reach newspapers and news media in regional languages besides English and Hindi in all parts of the country, the Bureau has a network of four regional and 34 branch offices. The offices are linked to headquarters by a teleprinter network.

Information Centres

To keep a direct link with the people and to assist them to get the latest information on national and international events, the Bureau has Information Centres at New Delhi, Jalandhar, Shimla, Srinagar, Bhopal, Jabalpur, Kohima, Aizawal, Gangtok and Port Blair.

Wall Newspaper

To cater to the needs of people who can read but who are not reached by newspapers, the Bureau brings out a weekly wall newspaper simultaneously in 12 languages. The languages include Khasi and Garo.

NEWS AGENCIES

In the country there are four news agencies viz., Press Trust of India (PTI), United News of India (UNI), Samachar Bharati and Hindustan Samachar. Of these the PTI and UNI supply news in English and the other two are operating through the medium of Hindi and other Indian languages. PTI started its operation in 1949 after taking over Reuters's business in India as well as the interests of the Associated Press of India. Over 200 newspapers in India subscribe to the PTI service, besides All India Radio, Doordarshan,

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central and state governments, commercial establishments, universities and public institutions. The UNI started its operation in 1961. The UNI has recently started its Hindi service. Both the agencies mostly depend upon arrangements with foreign international news agencies for collection of news from abroad. Samachar Bharati and Hindustan Samachar mainly serve the language press.

The four news agencies were merged in 1976 to form Samachar. The four constituents of Samachar again started functioning independently as four news agencies since 14 April 1978.

NON-ALIGNED NEWS AGENCIES POOL

The non-aligned countries met for the first time at the level of Information Ministers between 8—13 July 1976 at New Delhi and in a Declaration took note of "the persistent and the serious imbalance in the current global information situation" and its adverse effects on the non-aligned countries, stressed the need "to liberate their information and mass media" from the colonial legacy, and expressed their collective determination to rectify this situation. The Declaration called for "the decolonisation of information" and "the establishment of a new international order for information", which was felt to be "as necessary as the new economic order". To give practical shape to this, the Non-Aligned News Agencies Pool was set up on 13 July 1976.

The News Agencies Pool of the Non-Aligned Countries is a system of news exchange based on professional cooperation, equality and coordination among the pool partners. The number of the pool participants is over 83. Under the banner of the pool, more than 40,000 words are carried around the world each day.

India, which played a leading role in the formation of the pool, was elected the first Chairman of the Coordinating Committee from July 1976 to November 1979. India was also elected a member of the Pool's Coordinating Committee at its Third General Conference held in Tunis in the second week of November 1982.

The Press Trust of India operates India News Pool Desk of Non-Aligned News Agencies Pool. In the two years, since the first satellite channel was commissioned on 26 November 1980 between Delhi and Jakarta, the volume of outflow of pool news has grown twenty times—from a meagre 300 to 500 words daily in the beginning of 1980 to 8,566 words in November 1982. India is, currently having direct communication link with Belgrade, Djakarta, Bahrain, Havana, Colombo, Hanoi and Kuala Lumpur through satellite; and with Dhaka and Islamabad through terrestrial link.

PRESS COMMISSION

The Second Press Commission, set up in 1978, under the Commission of Inquiry Act, 1952, to enquire into the growth and status of the Indian Press, submitted its report to the Government on 3 April 1982. The commission was headed by Justice K. K. Mathew. The Report contains 278 recommendations covering diverse aspects of the Press. These were examined by the Ministry of Information and Broadcasting in consultation with other ministries/departments. Based on this examination, suggestions in respect of the various recommendations have been made which are presently under consideration of a Committee of Ministers which has been appointed to look into the matter to enable the Government to finalise its views.

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PRESS COUNCIL

The term of the first Press Council of India, which was constituted in 1979 under the Press Council Act, 1978 having come to an end in February 1982, a new Council was reconstituted for a term of three years and Mr. Justice A. N. Grover was renominated as chairman of the Council in June 1982 for the second term.

The Council safeguards freedom of press and maintain and improves the standard of newspapers and news agencies in India. The Council has the power to consider complaints *suo-moto,* in addition to inquiry into complaints brought before it. It has also been empowered to make observations against any authority including government if it considers it necessary for the performance of its functions.

The Press Council, during 1979-82, made studies in respect of Official Secrets Act and Contempt of Court Act in collaboration with the Indian Law Institute. The recommendations of the Council have been forwarded to the Ministry of Information and Broadcasting for necessary action.

During 1982, a total of 377 complaints required the attention of the Council. Out of these 210 complaints were disposed of by the Councils. This was done either through adjudications or dismissal due to non-prosecution, etc.

FILMS

Feature films are being produced in India since 1912-1913. While R. G. Torney along with N. G. Chitre made *Pundalik*. in 1912, Dhundiraj Govind Phalke (1870—1944) produced *Raja Harishchandra* in 1913. The era of silent films was overtaken by the talkie era in 1931 when Ardeshir Irani (1886—1969) produced *Alam Ara* though silent movies continued to be produced till 1934. Over the years, more than 15,000 feature films have been produced in India which now leads the world in the annual output of feature films.

During 1982, as many as 763 Indian feature films were certified for public exhibition as compared to 737 films in 1981. Of these, 720 films were in colour and 43 in black and white. Bombay, Calcutta and Madras are the most important production centres. Region wise certification of Indian feature films reveals that the output of the Southern region was more than the output of Bombay and Calcutta regions and accounted for nearly 64 per cent of the total film production. During 1982, 210 Indian feature films were certified at Bombay, 66 at Calcutta and 487 at Madras. Bangalore is also fast coming up as a centre for production of feature films. Number of feature films produced in various languages and certified for public exhibition for selected years from 1951 onwards is shown in table 10.9.

CENSORSHIP

Films can be exhibited in India only after they have been certified by the Central Board of Film Certification, a new name given to the Central Board of Film Censors. The Board, set up under the Cinematograph Act 1952, consists of 9 members and a Chairman all of whom are appointed by the Central Government. The headquarter of the Board is at Bombay, with regional offices at Bombay,

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TABLE 10·9

OUTPUT OF FEATURE FILMS

Language	1951	1956	1961	1966	1971	1976	1978	1981	1982
1. Assamese	—	3	2	2	5	5	6	5	5
2. Bengali	38	54	36	30	30	32	37	42	49
3. Bhojpuri	—	—	—	—	1	—	1	5	3
4. Dogri	—	—	—	1	—	—	—	—	—
5. English	—	—	—	—	1	2	2	2	1
6. Gujarati	6	3	7	2	3	29	32	34	39
7. Hindi	100	123	109	108	120	106	122	153	148
8. Kannada	2	14	12	21	33	45	54	65	51
9. Konkani	—	—	—	—	1	1	1	—	1
10. Malayalam	7	5	11	31	52	84	123	111	117
11. Manipuri	—	—	—	—	—	1	—	—	—
12. Marathi	16	13	15	12	23	10	15	27	24
13. Nepali	—	—	—	1	—	—	1	—	2
14. Oriya	—	2	2	2	1	6	15	10	9
15. Punjabi	4	—	5	4	2	10	8	8	6
16. Sindhi	—	—	—	1	1	—	—	—	—
17. Tamil	26	51	49	60	73	81	105	137	141
18. Telugu	20	27	55	41	85	93	94	132	154
19. Tulu	—	—	—	—	2	2	3	1	—
20. Rajasthani	—	—	—	—	—	—	—	2	3
21. Brijbhasha	—	—	—	—	—	—	—	—	1
22. Maithali	—	—	—	—	—	—	—	—	1
23. Malwi	—	—	—	—	—	—	—	—	1
24. Urdu	—	—	—	—	—	—	—	—	7
Total	219	295	303	316	433	507	619	737	763

Note : Films produced in Hindustani, Maithili, Chhatisgarhi, and Urdu languages were included in the number of Hindi films certified earlier. However, individual break up of these languages has been introduced in 1982.

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Calcutta and Madras. Arrangements are afoot for the setting up of a regional office of the Board at Bangalore. The regional offices are assisted in the examination of films by advisory panels, members of which are appointed by the Central Government. The panels include educationists, lawyers, social workers, members of the medical and legal professions, etc. The Board was last reconstituted in 1981. The Board has taken steps to curb depiction of violence and vulgarity in films.

The Board examines the films and grants 'U' certificates for unrestricted public exhibition and 'A' certificates for exhibition restricted to adults, *i.e.* above the age of 18. The Board may direct applicants to carry out excisions or modifications before granting certificates, where necessary. The Board may also refuse a certificate if the film is against the interest of the State, friendly relations with foreign states, public order, decency and morality or involves defamation or contempt of court or is likely to incite the commission of an offence.

The particulars of films certified are notified in the Gazette of India. An aggrieved applicant can appeal to the Central Government within 30 days of an order of the Board.

Parliament passed the Cinematograph Amendment Bill which received the assent of the President during the year. The Amendment Act, besides other things, provides for an independent Appellate Tribunal to hear appeals against the decisions of the Board.

In 1982, the Board granted 'U' certificates to 506 Indian feature films, 106 foreign feature films, 1,464 Indian short films and 1,604 foreign short films and 'A' certificates to 257 Indian feature films, 68 foreign feature films, 8 Indian short films and 23 foreign short films. The total number of 'U' certificates issued was 3,680 and 'A' certificates 356.

The Board re-certified a total of 1,046 films after expiry of the validity period of 10 years. Out of these, 1,021 films were granted 'U' certificates and 27 'A' certificates.

914 films were classified as approved for public exhibition during the year.

DOCUMENTARIES AND NEWSREELS

Films Division of the Ministry of Information and Broadcasting is responsible for production and distribution of newsreels, documentaries and other short films required for public information, education and instruction, motivation and attitude change. The Division, set up in 1948, had a modest start with the production of only 33 documentary films, 52 national newsreels and 12 compilations in 1949-50. In 1982-83, the Films Division produced 50 national, 40 regional, 8 special newsreels, 3 colour news magazines, 3 Indian news magazines and 5 colour Asiad news 82, whereas, normally, 52 national and 52 regional newsreels are produced in a year. Most of the films are produced in English and 15 regional languages.

During 1982-83, in all 159 documentary films were produced by Films Division (46 black and white and 113 colour) out of which 101 films were produced through departmental units and 58 through independent producers. The total of 159 films included 13 featurette films in 16mm produced through two Regional Production Centres at Bangalore and Calcutta. Besides 9 films were purchased from independent producers and 11 films were accepted as donation.

The Films Division supplies 60,000 to 65,000 prints of its films

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for theatrical and non-theatrical distribution throughout India.

Interesting events within and outside India are included in the weekly Indian News Review. Items from foreign countries are received from 18 organisations as part of an agreement of free exchange of newsreel material. Important events within the country are covered by 18 cameramen stationed at various centres in India. Sometimes the events covered by film units of the state governments are also incorporated in the weekly newsreels.

Every cinema house in the country is required under the terms of its licence, to exhibit at each performance not more than 609 metre of approved films. These are supplied by the Films Division on a payment of rental at one per cent of average weekly net collection. One newsreel and two documentary films are released every week. During 1982-83, the Division earned about Rs 4 crore by way of rentals from cinema houses and 12,936 prints were supplied free of charge to various publicity units.

Prints can be obtained on loan by government and semi government departments, educational institutions, hospitals, charitable institutions, social welfare and other non profit making organisations through its ten distribution branch offices located in different parts of the country.

Documentaries approved for external publicity are supplied to various missions abroad. These are utilised by the Indian missions for exhibiting in their premises and outside and also loaned to social and educational institutions and local Indian residents, etc. Besides the Films Division has regular arrangements for screening its documentaries in cinemas and on television in India and in some foreign countries.

In 1982-83, Films Division participated in 35 international films festivals with 72 films. Ten films produced by Films Division won awards.

Exhibition Facilities

There has been a steady growth of exhibition facilities for showing films in the country. Table 10.10 gives the number of cinemas from 1975-76 to 1981-82.

TABLE 10.10
NUMBER OF CINEMAS

Cinemas	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Permanent	5,650	5,845	6,030	6,216	6,405	6,667	6,991	7,149
Touring	3,367	3,332	3,521	3,744	4,157	4,146	4,248	4,533
Total	9,017	9,167	9,551	9,960	10,562	10,813	11,239	11,682

NATIONAL FILM DEVELOPMENT CORPORATION

The National Film Development Corporation (NFDC) was set up in 1975, as a central agency to promote good cinema in the country. The Film Finance Corporation and the Indian Motion Pictures Export Corporation were merged in the Corporation in 1980. The primary aim of the Corporation is to plan, promote and organise the integrated development of the film industry in India. In keeping with these objectives in view, NFDC today provides a wide range of critical services essential to the encouragement and development of good Indian cinema.

The financing and production of good films are the main activities of the Corporation. To date, NFDC has financed over 140 films and 55 documentaries; and of the 106 feature films so far completed, 65 have won national awards, and 20 international. NFDC has also produced its own films as, for example, *Atyachar, Adi Shankaracharya* and *Jane Bhi Do Yaaron.*

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The Corporation took an innovative step recently in deciding to finance the production of featurettes *i.e.* films of approximately half an hour to one hour duration. These will be shown on TV networks in India and abroad.

The Corporation inaugurated its programme of co-production with no less than the tremendously successful *Gandhi* directed by Sir Richard Attenborough. NFDC has also co-produced a 7-episode TV serial with a public sector undertaking in France. In collaboration with Doordarshan and Films Division, NFDC plans to make films specially for television, both in India and abroad.

NFDC has introduced a scheme to extend financial assistance for the construction of cinema theatres. Of 69 loans sanctioned, 17 have already been completed and started screening films.

Over the last few years, NFDC has built up a position of strength in the distribution of films in India. Last year, about 190 imported films were put in circulation. NFDC's distribution programme extends to the non-commercial circuit of film societies, clubs, etc., as well, so that good cinema is given maximum exposure. The recent acquisition of Akashwani Theatre in Bombay was a great asset. This theatre has already earned for itself a reputation for showing films of technical and aesthetic excellence.

The Corporation has been playing an increasingly outgoing role in the export of Indian films. Apart from theatrical sales, NFDC has achieved a breakthrough in the TV markets of some of the major countries of the world. Besides, its own exports, the export of all Indian feature films is canalised through NFDC. India exports films to over 80 countries. In order to further expand foreign markets, NFDC has set up an office at London. Other regional offices abroad are to follow.

The Corporation presently imports a little over 50 films a year. Since 1975 it has imported over 250 films.

Raw stock is canalised through NFDC so as to ensure equitable distribution at reasonable prices.

To boost the 16 mm film movement in the country, NFDC has set up a complete 16 mm production infrastructure consisting of 16 mm cameras, tape-recorders for synchronous shooting, editing tables and re-recording equipment at Calcutta. It has also set up a sophisticated and modern sub-titling unit in Bombay—the first of its kind in the Asian region. NFDC has set up a Video Cassette Unit in Madras also to transfer films onto cassettes and also to produce pre-recorded cassettes.

CHILDREN'S FILM SOCIETY

The Children's Film Society India (CFSI) was set up in May 1955 to produce, acquire, dub and arrange distribution and exhibition of films designed for young people. The main objective of the Society is to use the medium of films to provide neo-youths, clean and healthy entertainment, to advance education and culture. This is a premier organisation in India entrusted with the task of promotion of children's film movement.

The main office of the Society is located in Bombay, with zonal offices at New Delhi, Madras and Calcutta.

The Society has acquired 259 films consisting of 94 feature films and 165 shorts, puppet, cartoon and experimental films as on 1 June 1983. Out of 94 feature films, 48 have been produced by CFSI.

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The Society has organised two international competitive film festivals, one at Bombay in 1979 and the other at Madras in 1981.

Week Long Festivals

Commencing from 1 January 1979, the first day of the International Year of the Child, week-long festivals were organised at important towns. Fifteen such festivals were held during 1982-83.

The Society has been participating in national and international festivals from time to time. Its puppet film, *Raju* and *Tinku* in colour has won Rajat Kamal and cash prize as the best animation film in the national awards for 1982.

The CFSI has expanded its distribution net work. Special efforts are being made to reach young people in urban and rural areas under the programmes of "Reaching the Children". Apart from exhibition of films in morning shows in theatres in important towns, the films are lent to various organisations such as the child welfare centres, community centres, cultural institutions, schools and film clubs, in addition to the use of mobile units.

Film Clubs

A scheme to provide films to film clubs formed in different regions is gaining popularity. Its membership has risen to 1,951.

The Society has entered into agreements with Mauritius, Sri Lanka, Iran, Sweden, etc., for exhibition of films. It has received requisition from Australian Broadcasting Corporation too. Eleven films have been sent to Iran for transmission on TV network.

NATIONAL FILM FESTIVAL

The scheme of National Film Festival (earlier called National Awards for Films) was instituted in 1953. It aims at promoting India's film art by acknowledging outstanding achievements in 28 categories of film art and film making. This includes an award on the best book on cinema instituted in 1982 for the first time. The golden lotus (*Swaran Kamal*), the silver lotus (*Rajat Kamal*) and cash prizes are given under the national awards scheme. The scheme consists of all-India and regional awards. The regional awards are meant for films produced in the principal languages of the country. Besides, the Dadasaheb Phalke Award, instituted in 1969, is given for the outstanding contribution to the cause of Indian cinema. The Phalke Award is decided by the Union Government and entries for the National Film Festival are examined by the two national juries for films, one for short films and the other for feature films.

For the thirtieth National Film Festival (feature films certified in 1982) entries of 66 feature films and 132 short films were received. The best feature film adjudged was *Chokh* (Bengali) directed by Utpalendu Chakraborty and the award for the best direction was also given to him. The Nargis Dutt award for the best feature film on national integration went to the Malayalam film *Aroodam* directed by I. V. Sasi. Hindi film *Spandan* directed by Biplab Ray Chaudhuri, bagged the award for the best feature film on family welfare. Kamal Hasan won the best actor's award for his role in the Tamil film *Moondram Pirai* and the best actress award went to Shabana Azmi for her performance in the Hindi film *Arth*. Master Vimal was adjudged as the best child artiste for his performance in the Malayalam film *Aroodam*.

The twenty-ninth National Film Festival (for films certified for public exhibition during 1981) was held from 27 April 1982. The

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best feature film adjudged was *Dakhal* (Bengali) and was awarded *Swaran Kamal.* The film was produced by West Bengal Government and directed by Gautam Ghosh. Award for the second best feature film was given to *Pokkuveyil* (Malayalam), directed by G. Arvindan. The Nargis Dutt award for the best feature film on national integration was given to *Saptapadi* (Telugu), directed by K. Viswanath. Ashok Ahuja was given award for the best first film of a director for his film *Aadharshila* (Hindi). Award for the best direction was given to Aparna Sen for her film *36 Chowringhee Lane* (English). The award for the best actor and best actress were given to Om Puri and Rekha respectively. The Special Jury award for 1981 was given to Satyajit Ray for his Hindi film *Sadgati.* Award for best information film was given to *Faces After the Storm,* a film produced by the Films Division.

The Dadasaheb Phalke award for 1981 was conferred on the music director Naushad Ali and of 1982 on Akkineni Lakshmi Varaprasada Rao, popularly known as L. V. Prasad. He has produced and directed a number of films in Hindi, Telugu, Tamil and Kannada. The earlier recipients of Phalke awards are : Devika Rani (1969), Birendra Nath Sircar (1970), Prithviraj Kapoor (1971, posthumously), Pankaj Mullick (1972), Ruby Meyers popularly known as Sulochana (1973), B. N. Reddi (1974), Dhiren Ganguly (1975), Kanan Devi (1976), Nitin Bose (1977), Rai Chand Boral (1978), Sohrab Modi (1979) and P. Jairaj (1980).

NATIONAL FILM ARCHIVE OF INDIA

The National Film Archive of India preserves the heritage of national and international cinema for study, research and reference. Its collection on 31 December 1982 consisted of 8,091 films (5,462 Indian and 2,629 foreign), 936 micro-films, 11,600 scripts, 1,483 disc records, 24,148 stills, 3,984 wall posters, 3,005 song booklets, 4,399 pamphlets, 11,269 books and 214 periodicals. Notable among its acquisitions are several silent and talkie films made in the early days of cinema in India and abroad as well as recent award winning Indian and foreign films.

The Archive holds regular screening of classic films and conducts short term courses on film appreciation at Pune and other centres for promotion of healthy film culture. The Archive has recently started a collaboration programme with Doordarshan for the production of series of programmes on film appreciation for telecast with the national net-work.

The Archive also makes available film classics and related literature to film students, research workers, both Indian and foreign and film societies for study purposes.

It maintains a distribution library of 174 Indian and foreign films, which are being loaned to film societies and film study groups throughout the country for non-commercial study screenings.

With headquarters at Pune, the Archive has at present two regional offices—one at Bangalore and the other at Calcutta.

WORKING GROUP ON NATIONAL FILM POLICY

During 1982, the following concessions have been provided by the Government to the film industry on the basis of the recommendations of the Working Group on National Film Policy :

(a) All national award winning films as well as its dubbed versions in other languages have been exempted from excise duty.

(b) Documentaries up to the length of 600 metres were already exempted from excise duty. Where the length is

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more than 600 metres, excise duty will now be leviable on the length in excess of 600 metres.

(c) Newsreels which were formerly liable to excise duty at reduced rate have now been brought in line with documentaries. As a result, newsreels up to the length of 600 metres will be wholly exempted from excise duty and where the length is more than 600 metres, excise duty will be leviable only on the length in excess of 600 metres.

PUBLICATIONS

The Publications Division of the Ministry of Information and Broadcasting is one of the leading publishing houses in the country. Originally set up in 1941, as the foreign branch of the Bureau of Public Information, it acquired its present name and separate identity in 1944. It publishes priced books, journals and other printed material in Hindi, English and all other major Indian languages on a wide range of subjects including art and culture, history and tradition, political evolution, democratic process, economic development and social resurgence. On an average the Division brings out over a hundred titles a year.

The Division has seven major series under which it publishes books. These are : (a) *The Collected Works of Mahatma Gandhi,* (b) *Children's Literature,* (c) *Builders of Modern India,* (d) *Cultural Leaders of India,* (e) *States of Our Union,* (f) *Speeches of Leaders,* and (g) *Reference Publications.* Besides, a new series of short pictorial biographies for children has also been started during the year.

Books under the series *The Collected Works of Mahatma Gandhi* are produced in English and in Hindi. These include Gandhiji's speeches, writings, interviews and letters chronologically arranged and objectively edited. Eighty-seven volumes in English and 75 volumes in Hindi have so far been published, out of 91 volumes planned.

The *Builders of Modern India* series concentrates on presenting biographies of eminent sons and daughters of India, who have played a prominent role in the national renaissance and the struggle for independence. Fifty-five biographies have been published and 25 more are in various stages of production.

Books under the *Cultural Leaders of India* series provide the readers with authentic accounts of the life and work of great sages and seers since the earliest time to the 19th century, who contributed to the culture and thought of India. Those under *States of Our Union* series serve as an introduction to different states and union territories. Eleven titles have been brought out under *Cultural Leaders of India* and 22 under *States of Our Union* series.

The Division also publishes speeches of national leaders including the President, the Vice-President and the Prime Minister.

Another important dimension of the Division is to bring out 21 journals of varying periodicity. *Yojana,* a journal devoted to planning, is brought out in Assamese, Bengali, English, Gujarati, Hindi, Malayalam, Marathi, Tamil, Telugu and Urdu. *Bal Bharati* (Hindi) is produced for children, while *Ajkal* (Hindi and Urdu) serves the cultural and literary expectations of adult readers. Other journals include the *Indian & Foreign Review, Kurukshetra* (Hindi and English) and *Bhagirath* (Hindi and English). *The Employment News,* a weekly

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published in English, Hindi and Urdu, having the circulation of about 3 lakh provides information about job opportunities in various fields to the employment seeking youth.

The books and journals are sold through a network of over 3,000 booksellers and the Division's own sales emporia, which are located in New Delhi, Bombay, Calcutta, Madras, Patna, Trivandrum, Lucknow and Hyderabad.

ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising and Visual Publicity (DAVP) is the central agency of the Government of India for undertaking advertising and visual publicity campaigns on behalf of the various ministtries and departments through press advertisements, printed publicity materials like posters, folders, leaflets, brouchures and booklets, outdoor publicity items like hoardings, wall paintings, bus, tram and rail panels, cinema slides and metallic tablets, radio and television spots and sponsored programmes. Policies and programmes of the government are also publicised through photographic exhibitions. The Directorate has 40 field exhibition units, most of them at state capitals, including 6 mobile vans and two exhibition rail coaches.

Multi-Media Publicity

The multi-media national campaigns of the Directorate are launched to inform and educate the people on matters of immediate and long term interest. Major campaigns were organised for Revised 20-Point Programme, health and family welfare, communal harmony and national integration and to eradicate untouchability. Publicity support was given to major national and international events like the Ninth Asian Games, Seventh Non-aligned Summit Meet, India-International Trade Fair, 1982, Ninth International Film Festival and Golden Jubilee of the Indian Air Force. A consumer protection publicity campaign was launched to fight the evil of adulteration of lubricants on behalf of the four public sector oil companies. Other major campaigns aimed at educating the people about agro-economic development of the country, mobilisation of savings, popularisation of handlooms and handicrafts, civil rights, road safety, etc., were also taken up.

Exhibitions

The Directorate organised 776 exhibitions during 1982-83. The major thrust of the exhibitions was to promote communal harmony and national integration and to project the Revised 20-Point Programme. In March 1983, DAVP designed and displayed a special photographic exhibition entitled 'The Story of the Non-Aligned Movement'. An exhibition was also arranged on the Ninth Asian Games entitled 'Fraternity through Sports'. For display at the Third Asian Pacific Population Conference at Colombo, Sri Lanka, the Directorate designed and produced an exhibition entitled 'India-Population and Development'.

Advertisements

Advertisements in various newspapers/journals on behalf of various ministries (except Railways) and departments of Government of India are released to the press by the Directorate. A number of autonomous bodies and public sector undertakings also channelise their advertisements through DAVP. Keeping in view the advertising policy of the

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Government, specific publicity requirements and budgetary allocations, a balanced and equitable placement of advertisements is aimed at. In pursuance of the broad social objectives of the Government, the appropriate weightage/consideration is given to small and medium newspapers/journals, specialised, scientific and technical journals, language newspapers/periodicals and newspapers/journals published especially from backward, border and remote areas.

The DAVP also accredits advertising agencies to enable them to undertake publicity work of public sector enterprises and autonomous bodies.

Awards for Printing and Designing

The Directorate organises a competition every year for the national awards for excellence in printing and designing of books and other publications in order to generate healthy competitive endeavours for higher standards in printing, designing and layout. The 23rd national awards were announced in 1983 and a total of 410 awards were given to about 250 winners under 60 categories.

Distribution

The DAVP maintains an address bank of more than 12 lakh addresses covering over 350 categories of target audience, most of which belong to rural categories like panchayats, primary/high schools, block development offices, rural post offices, rural libraries, etc., for the mailing of its various publicity materials.

FIELD PUBLICITY

The Directorate of Field Publicity with its network of 22 regional offices and 257 field publicity units (including 72 border units and 30 family welfare units) spread all over the country publicises policies, programmes and achievements of the Government through different channels of mass media, like films, photo, printed and spoken word primarily at the grassroot level. The publicity activities are organised in close collaboration with the official, non-official and voluntary agencies engaged in the field. Public reactions to the policies and programmes of the Government are also collected and sent to the concerned quarters for taking remedial action wherever necessary.

The prime emphasis during the year was on publicity for the Revised 20-Point Programme. In addition, national themes like national unity and communal harmony, family welfare, eradication of untouchability, agricultural development, village and small industries, status of women, health and hygiene, defence preparedness, self-reliance, etc., were also publicised.

In the recent past a new operational strategy was evolved, called 'Area Approach And Pooling Plan' under which man and material resources of the organisation are pooled to carry out intensive and effective multi-media publicity in the selected tribal, backward and remote areas on a rotation basis. Under this campaign nearly 600 areas were covered.

Another innovation is the system of special media production for field programmes. Under this plan suitable exhibition kits, sound features and sound programmes were produced. To begin with, a 25-panel photo exhibition based on Jawaharlal Nehru's life was displayed all over the country. Similar media productions are under way to project country's achievements in the various fields and its policy of non-alignment.

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To foster national feelings and sense of pride for the motherland and to give first-hand knowledge about various developmental programmes and projects, conducted tours of opinion leaders are arranged from different parts of the country. One such tour was arranged from Jammu and Kashmir to Uttar Pradesh and Delhi.

In 1982, the units arranged more than 70,000 film shows. An effort was made to make the programmes audience and area-specific by giving them a local touch. Special programmes were organised for the special target groups like students, youth, women and children. In addition, crowd points and occasions, fairs, festivals and important gatherings, etc., were utilised for maximum advantage. Major publicity campaigns were launched on Revised 20-Point Programme, on communal harmony and national integration in Punjab and on family welfare. Inaccessible areas were covered by undertaking foot marches.

RESEARCH AND REFERENCE DIVISION

The Research and Reference Division of the Ministry of Information and Broadcasting collects basic information on various subjects, studies in depth problems of national significance and provides reference service to the media units of the Ministry and others. The Division also provides UNESCO and other well known international reference publications information about India. Besides, it studies trends in the mass communication media.

The Division compiles two annuals. *India—A Reference Annual* is a standard work of reference which provides objective and authentic information on diverse aspects of national life and activities in India. The other annual *Mass Media in India* brought out since 1978, provides basic and up-to-date information and statistics on different media of mass communication in the country.

The Division has been maintaining a news index and a reference service. Items of long-term interest from *The Hindu* and *The Economic Times* as also articles from important periodicals are indexed. In addition, news items, articles and comments from the metropolitan and *mofussil* papers in English are clipped and classified.

The Division's regular services include 'Background to the News' and 'Reference Papers' on matters of topical interest. Biographical sketches of eminent persons in various fields are also prepared.

A National Documentation Centre on Mass Communication was set up in 1976 as part of the Research and Reference Division with the broad objective of collecting and disseminating information relating to mass communication studies and problems. The Centre provides documentation services on the different media of mass communication. The Centre brings out papers under its various services like bulletin on film, media memory, reference information service, bibliography service, current awareness service, etc.

SONG AND DRAMA DIVISION

The Song and Drama Division of the Ministry of Information and Broadcasting established in 1954, utilises live entertainment media to make the masses aware of the various national programmes and objectives. It uses a wide range of stage forms like puppet shows, plays, dances, dance dramas, ballads, *harikathas* and sound and light shows for this purpose. These programmes are organised through 41

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departmental troupes spread all over the country and about 500 private parties registered with the Division. Several central and state agencies are also used for arranging programmes in the field. The Division presents various types of programmes for the masses, which include both rural and urban people, tribal people in the interior-most areas. A special wing performs for the entertainment of the armed forces personnel posted in the forward areas. These programmes create an awareness of the social, economic and democratic ideals cherished by the nation.

In 1969, with the presentation of *Vision 1919*—a programme on the Jallianwala Bagh massacre, the Division created Theatre Panosonic —a sound and light spectacle with live action by a large number of artists which could be seen from different angles by spectators at a time. The Division has presented lives of great persons *viz.* Guru Nanak, Subramania Bharati, Amir Khusro, Vidyapati, Akbar, Krishna Devaraya. A great spectacle of freedom struggle and epic story of *Ram Charit Manas* were the other highlights of this medium. A mini programme based on family welfare has also gained popularity.

A pilot project to utilise tribal folk forms has taken off to a good start at Ranchi. This is to bring over the tribals into the national mainstream and solicit their active participation in development through the live media.

PHOTO DIVISION

The Photo Division of the Ministry of Information and Broadcasting caters to the requirements of photographs for internal and external publicity. Its main function is to photographically document the growth and social change taking place in the country. Important events, visits of foreign VIPs, PM's visits abroad and international conferences are given coverage. The Revised 20-Point Programme is given special importance. Special albums are made for presentation to VIPs. Photographs are supplied to government departments and to the members of the public on nominal charges.

The Division maintains a library of photographic negatives (around six lakh in number) of great archival and historic importance pertaining to national and international events since Independence and photographs of the country, its landscape and people taken over the years. The legend and reference of these negatives are maintained in a separate photo library under the Press Information Bureau.

The main office of the Photo Division is located in New Delhi. It has regional offices at Madras, Calcutta and Bombay.

EXTERNAL PUBLICITY

The External Publicity Division of the Ministry of External Affairs explains and interprets the policies of the Government as well as political, economic, social and cultural developments in India to foreign audiences. It also coordinates and supervises the work of the information and cultural wings of Indian missions abroad. The Division briefs and assists Indian missions abroad to interpret all aspects of India's foreign policies to the public and the media in their respective countries through publicity material, special briefings, etc.

The Division performs its activities through briefing of Indian as well as foreign press corps resident in India, publication of Maga-

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zines, periodicals and pamphlets, sponsoring special supplements on India in foreign newspapers, organisation of visits by foreign journalists to India and Indian journalists abroad and publicity through film, radio and other audio visual means.

The Division brings out a fortnightly *Indian & Foreign Review* and its French version *Courtier de l'Inde*. It also publishes the monthly, *Foreign Affairs Record*, a documentation of official pronouncements on subjects related to India's foreign policy.

TRAINING

Training in mass communication subjects is given by a number of institutions in the country. Among the universi ies which offer degree/diploma/certificate courses in journalism are : the Aligarh Muslim University, Banaras Hindu University, and the Universities of Berhampur, Bangalore, Calcutta, Calicut, Guwahati, Garhwal, Jabalpur, Kerala, Madras, Madurai Kamraj, Maharishi Dayanand, Marathwada, Mysore, Nagpur, Osmania, Panjab, Poona, Punjabi, Rajasthan, Shivaji and Saurashtra.

Universities like Mysore, Osmania, Calcutta, Jabalpur and Kerala have provision for a Master's degree course in the subject. Bangalore University offers the B.Sc. (Communication) and M. S. (Communication) courses in the subject of mass communication. Punjab Agricultural University offers a two-year course in agricultural journalism for science graduates.

Staff Training (Programmes)

The Staff Training Institute (Programmes), All India Radio imparts training to in-service personnel of AIR as also for guest trainees from foreign broadcasting organisations in the planning and production of all types of programmes like spoken words, drama, music, radio reports, farms and home broadcasting, educational programmes and news reels. Training is also given in programme administration and audience research and other allied topics.

The Staff Training Institute (Programmes), All India Radio, New Delhi has two regional training centres, one at Hyderabad, the other at Shillong.

The Institute also arranges training for trainees from abroad. These trainees are usually sponsored under Colombo Plan and the Special Commonwealth African Assistance Plan and other Cultural Exchange Programmes.

Staff Training (Technical)

The Staff Training Institute (Technical) has the responsibility of imparting in service training to the engineers of All India Radio and Doordarshan. The Institute runs basic orientation course and induction course for the new entrants into the service. It also arranges specialised courses on various subjects like sound and video recording, frequency modulation, colour TV, maintenance of TV receivers and video recorders, digital technology and integrated circuits as the equipments with more and more updated technology are inducted into the AIR and Doordarshan net works.

Film and Television Training

The Film and Television Institute of India (FTII) was set up at Pane in 1960 for training in the art and craft of film and television. FTII became an autonomous body in October 1974.

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The Film Wing of the Institute offers a three-year course in (1) motion picture photography, (2) film editing, (3) film direction with two-year's integrated training, and (4) sound recording and sound engineering with one year integrated training. The Television Wing of the Institute offers in-service training for the employees of Doordarshan. Apart from this general course, short-term specialised courses in television production are also organised.

A one-month course in film appreciation is a regular annual feature of the Institute.

Indian Institute of Mass Communication

The Indian Institute of Mass Communication was set up by the Ministry of Information and Broadcasting in August 1965 as a centre for training and research in mass communication. It was made autonomous in January 1966. The Institute's instruction courses cover developmental journalism, the print media, audio-visual aids and films, radio and television, oral communication, traditional media, advertising, campaign planning and communication research.

The regular training courses offered at this Institute are : (i) a nine-month post-graduate diploma course in journalism for graduates from Indian universities and foreign scholars with journalistic background from developing countries; (ii) an eight-month diploma course in news agency journalism for persons from news agencies of non-aligned countries to enhance their professional skills and background; (iii) a nine-month post-graduate diploma course in advertising and public relations; (iv) a ten-week course in broadcast journalism for AIR and TV personnel; (v) a six-month to 15 months orientation course for officers of the Central Information Service Group A and B; and a six-week refresher course for middle-level personnel of the Central and state information departments and of public sector undertakings. Besides, there are courses designed for Central Information Service officers and Indian Foreign Service probationers.

In addition to training courses, the Institute organises or collaborates with other institutions in organising seminars on professional problems concerning the media.

The Institute brings out a number of books and pamphlets on different aspects of mass communication and also conducts research on national and international communication problems. It also brings out *Communicator* a quarterly in English and *Sanchar Madhyam*, a half-yearly journal in Hindi.

EVALUATION

The Directorate of Evaluation in the Ministry of Information and Broadcasting organises studies on particular aspects of the performance of the media units through the Indian Institute of Mass Communication and other bodies.

ADVISORY COMMITTEE

An Advisory Committee was constituted by the Government in November 1980 to make recommendations from time to time regarding the restructuring of the various media organisations under the Ministry of Information and Broadcasting and also how best they could function in a more professional and efficient manner. The 14-member Committee consisting of eminent mediamen was formed under the chairmanship of G. Parthasarathi.

The terms of reference of the Advisory Committee are to advise the Government on : (a) structural changes in the different media

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organisations under the Ministry and, if necessary in the Ministry itself to bring about greater professional efficiency and improvement in the quality of performance of the media in response to wide-ranging national requirements and aspirations; (b) measures to be taken at the national, state, regional and local levels to associate the people more directly in the planning and initiation of innovative programmes in the different media organs under the jurisdiction of the Ministry, through creative participation and inter-communication so as to enrich their cultural identity and promote national integration; (c) determining priorities in different areas of media development and providing adequate infrastructural support and strengthening the capacity of the media to reach out to all sections of the people; (d) the mode and mechanics of coordination amongst various media groups under the Ministry and of cooperation between the central and state media organisations with a view to maximising the impact of the communication support for developmental efforts; and (e) any other related matter referred to the Committee by the Government for advice.

The Committee has to make recommendations from time to time on the various areas included in the terms of reference. So far, it has made four recommendations relating to grant of pension to staff artistes of Akashvani and Doordarshan, news policy for broadcast media, introduction of Colour TV in the country and the publishing activities of the Publications Division.

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11 BASIC ECONOMIC DATA

India is rich in natural resources and manpower. These resources have, however, not been exploited fully and are capable of greater utilisation. The Indian economy is still predominantly agricultural, about half of the country's national income is derived from agriculture and allied activities, which absorb nearly three-fourths of its working force. Since 1947, the aim has been to diversify the economy

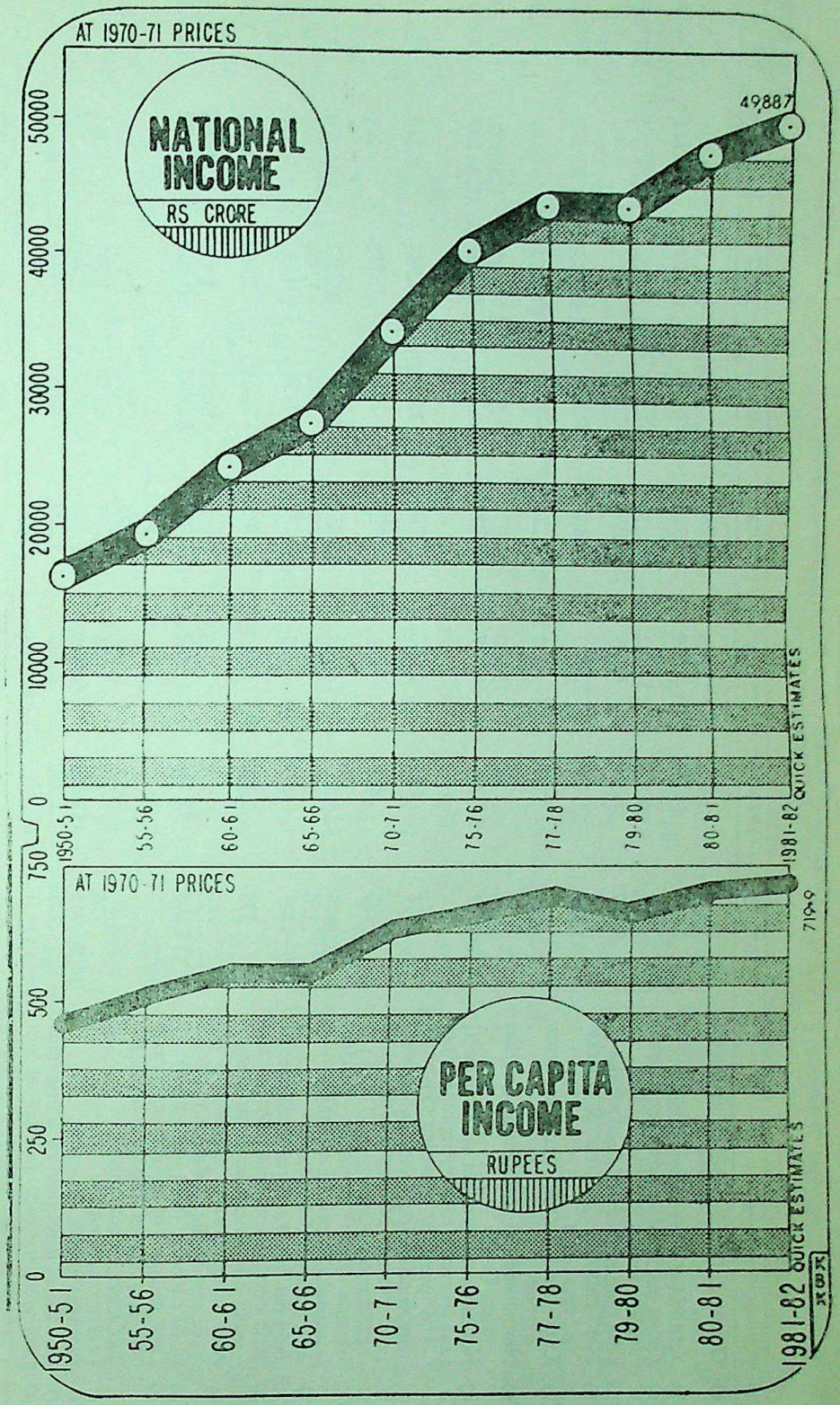
TABLE 11·1
NATIONAL AND PER CAPITA INCOMES AT FACTOR COST

Item	1970-71	1976-77	1978-79[1]	1979-80[1]	1980-81[1]	1981-82[2]
Net national product at factor cost (Rs crore)						
at current prices . .	34,235	66,754	81,123	88,372	1,06,539	1,21,243
at 1970-71 prices . .	34,235	40,271	46,386	43,922	47,490	49,887
Per capita net national product (Rs)						
at current prices . .	632·8	1,076·7	1,251·9	1,332·9	1,571·4	1,749·5
at 1970-71 prices . .	632·8	649·5	715·8	662·5	700·4	719·9
Index number of net national product with 1970-71 as base						
at current prices . .	100·0	195·0	237·0	258·1	311·2	354·1
at 1970-71 prices . .	100·0	117·6	135·5	128·3	138·7	145·7
Index number of per capita net national product with 1970-71 as base						
at current prices . .	100·0	170·1	197·8	210·6	248·3	276·5
at 1970-71 prices . .	100·0	102·6	113·1	104·7	110·7	113·8
Gross national product at factor cost (Rs crore)						
at current prices .	36,452	71,231	86,816	95,023	1,14,601	1,30,795
at 1970-71 prices .	36,452	42,902	49,386	47,002	50,767	53,424
Index number of gross national product with 1970-71 as base						
at current prices . .	100·0	195·4	238·2	260·7	314·4	358·8
at 1970-71 prices . .	100·0	117·7	135·5	128·9	139·3	146·6

[1] Provisional estimates
[2] Quick estimates

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TABLE 11·2

National Product and Related Aggregates
(at current prices)

(Rs in crore)

Item	1970-71	1974-75	1976-77	1977-78[2]	1978-79[2]	1979-80[2]	1980-81[2]	1981-82[3]
(a) Gross national product at factor cost	36,452	62,972	71,231	80,493	86,816	95,023	1,14,601	1,30,795
(b) Add indirect taxes less subsidies	3,527	6,332	8,533	8,917	10,534	12,203	13,923	16,886
(c) Gross national product at market prices (a+b)	39,979	69,304	79,764	89,410	97,350	1,07,226	1,28,524	1,47,681
(d) Less consumption of fixed capital	2,217	3,526	4,477	4,957	5,693	6,651	8,062	9,552
(e) Net national product at market prices (c—d)	37,762	65,778	75,287	84,453	91,657	1,00,575	1,20,462	1,38,129
(f) Less net factor income from abroad	(—)284	(—)291	(—)233	(—)233	(—)156	(+)153	(+)330	(+)330
(g) Net domestic product at market prices (e—g)	38,046	66,069	75,520	84,686	91,813	1,00,422	1,20,132	1,37,799
(h) Net domestic product at factor cost	34,519	59,737	66,987	75,769	81,279	88,219	1,06,209	1,20,913
(i) Less income from entrepreneurship and property accruing to government administrative departments	574	805	1,598	1,790	1,856	1,985	2,245	2,497
(j) Less saving of non-departmental enterprises	70	419	601	327	442	372	184	1,159
(k) Income from domestic product accruing to private sector (h—i—j)	33,875	58,513	64,788	73,652	78,981	85,862	1,03,780	1,17,257
(l) Add national debt interest	216	340	601	697	934	1,008	1,500	1,873
(m) Add net factor income from abroad	(—)284	(—)291	(—)233	(—)233	(—)156	(+)153	(+)330	(+)330
(n) Add current transfers from government administrative departments	578	1,150	1,547	1,762	2,005	2,383	2,808	3,348
(o) Add other current transfers from the rest of the world (net)	123	274	739	1,022	1,042	1,624	2,064	2,585
(p) Private income (k+l+m+n+o)	34,508	59,986	67,442	76,900	82,806	91,030	1,10,482	1,25,393
(q) Less saving of private corporate sector, net of retained earnings of foreign companies	193	677	259	359	482	736	814	952
(r) Less corporation tax	370	709	984	1,221	1,251	1,392	1,311	1,962
(s) Personal income (p—q—r)	33,945	58,600	66,199	75,320	81,073	88,902	1,08,357	1,22,479
(t) Less direct taxes paid by households	721	1,259	1,792	1,657	1,806	2,011	2,275	2,529
(u) Less miscellaneous receipts of government administrative departments[1]	162	196	246	239	282	356	381	389
(v) Personal disposable income (s—t—u)	33,062	57,145	64,161	73,424	78,985	86,535	1,05,701	1,19,561

1. Available data do not permit separation of fees, fines, etc., paid by producers and to that extent personal disposable income is under estimated.
2. Provisional estimates
3. Quick estimates

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TABLE 11·3

PERFORMANCE OF PUBLIC SECTOR
(at current prices)

(Rs in crore)

Item	1970-71	1976-77	1977-78[1]	1978-79[1]	1979-80[1]	1980-81[1]	1981-82[2]
Gross domestic product	36,736	71,464	80,726	86,972	94,870	1,14,271	1,30,465
Public	5,456	14,379	15,693	17,449	20,028	23,406	28,667
Private	31,280	57,085	65,033	69,523	74,842	90,865	1,01,798
Share of public to total (per cent)	14·9	20·1	19·4	20·1	21·1	20·5	22·0
Gross domestic saving	6,783	17,834	19,500	23,665	24,098	28,086	33,627
Public	1,253	4,114	4,055	4,605	4,785	4,471	7,014
Private	5,530	13,720	15,445	19,060	19,313	23,615	26,613
Share of public to total (per cent)	18·5	23·1	20·8	19·5	19·9	15·9	20·9
Gross domestic capital formation[3]	7,344	17,669	18,570	22,977	26,144	30,534	35,516
Public[4]	2,773	8,513	7,450	9,649	11,775	13,651	16,474
Private	4,571	9,156	11,120	13,328	14,369	16,883	19,042
Share of public to total (per cent)	37·8	48·2	40·1	42·0	45·0	44·7	46·4
Final consumption expenditure	33,639	62,472	71,453	77,758	85,130	1,02,611	1,17,414
Public administration	3,801	8,206	8,667	9,624	11,041	13,029	15,180
Private household and non-profit institutions	29,838	54,266	62,786	68,134	74,089	89,582	1,02,234
Share of public to total (per cent)	11·3	13·1	12·1	12·4	13·0	12·7	12·9

1. Provisional estimates
2. Quick estimates.
3. Unadjusted for errors and omissions.
4. Including net purchase of second-hand physical assets.

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TABLE 11·4

PRIVATE CONSUMPTION, SAVING AND CAPITAL FORMATION

Year	Private final consumption expenditure in domestic market (Rs crore)		Per capita private final consumption expenditure in domestic market (Rs.)		Net domestic saving (Rs. crore)	Rate of saving[1] (per cent)	Net domestic capital formation (Rs crore)		Rate of capital formation[1] (per cent)
	at current prices	at 1970-71 prices	at current prices	at 1970-71 prices	at current prices	at current prices	at current prices	at 1970-71 prices	at current prices
1970-71	29,838	29,838	551·5	551·5	4,566	12·0	4,960	4,960	13·0
1971-72	32,097	30,704	579·4	554·2	5,099	12·4	5,577	5,262	13·6
1972-73 . . .	35,131	30,070	620·7	531·3	5,100	11·3	5,397	4,667	11.9
1973-74 . . .	42,933	30,880	741·5	533·3	8,369	15·0	8,761	6,629	15·7
1974-75 . . .	52,041	31,143	880·6	527·0	9,127	13·8	9,780	5,850	14·8
1975-76 . . .	52,992	33,467	874·5	552·3	10,800	15·4	10,683	5,951	15·3
1976-77	54,266	33,194	875·3	535·4	13,357	17·7	12,048	6,578	16·0
1977-78[2]	62,786	36,589	990·3	577·1	14,543	17·2	13,078	7,054	15·4
1978-79[2]	68,134	38,175	1,051·5	589·1	17,972	19·6	18,100	9,069	19·7
1979-80[2]	74,089	36,769	1,117·5	554·6	17,447	17·4	18,027	7,734	18·0
1980-81[2]	89,582	39,757	1,321·3	586·4	20,024	16·7	22,424	8,613	18·7
1981-82[3]	1,02,234	41,008	1,475·2	591·7	24,075	17·5	27,725	9,282	20·1

1. Per cent of net domestic product at market prices.

2. Provisional estimates

3. Quick estimates.

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by accelerating the pace of industrial development, increase agricultural productivity and achieve all-round progress under the national plans.

NATIONAL AND PER CAPITA INCOMES

National income in India is defined as the sum of incomes accruing to the factors of production supplied by normal residents of the country before deduction of direct taxes. It is identically equal to net national product at factor cost. Table 11.1 gives the estimates of national and per capita incomes at current and 1970-71 prices.

Table 11.2 gives national product and related aggregates at current prices. Table 11.3 gives the performance of public sector. Table 11.4 gives the private final consumption expenditure, net domestic saving and capital formation since 1970-71.

Table 11.5 gives distribution of net domestic product, compensation of employees, mixed income of self-employed, interest, rent and profits and dividends.

CATEGORIES OF WORKERS

For the 1981 Census, the population was divided into main workers, marginal workers and non-workers. The provisional figures of only these broad groups are available. In the 1971 Census, the population was divided into workers and non-workers. There were 9 categories of workers, which is shown in table 11.6. It also shows the number of workers and non-workers in rural and urban areas as on 1 March 1981 as compared to those on 1 April 1971.

TABLE 11·6
POPULATION BY CATEGORIES OF WORKERS AND NON-WORKERS

(In crore)

	Rural	Urban	Total
1981 Census[1]			
Total population	50·20	15·62	65·82
Main workers	17·45	4·56	22·01
Marginal workers	2·36	0·35	2·71
Non-workers	30·39	10·71	41·10
1971 Census			
Total population	43·91	10·91	54·82
Workers	14·85	3·20	18·05
(i) cultivators	7·66	0·17	7·83
(ii) agricultural labourers	4·56	0·19	4·75
(iii) livestock, forestry, fishing, etc.	0·38	0·05	0·43
(iv) mining and quarrying	0·06	0·03	0·09
(v) manufacturing, processing, etc.	0·82	0·89	1·71
(vi) construction	0·11	0·11	0·22
(vii) trade and commerce	0·36	0·64	1·00
(viii) transport, storage and communication	0·12	0·32	0·44
(ix) other services	0·78	0·80	1·58
Non-workers	29·05	7·71	36·77

1. Based on provisional figures of 1981 Census.

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TABLE 11·5

DISTRIBUTION OF FACTOR INCOMES AT CURRENT PRICES

(Rs in crore)

Item	1970-71	1976-77	1977-78	1978-79	1979-80	1980-81
(i) Compensation of employees	13,363	26,464	29,406	32,072	35,290	41,145
(ii) Interest	1,802	4,794	5,351	6,222	7,167	8,113
(iii) Rent	1,748	2,929	3,240	3,713	3,991	4,224
(iv) Profits and dividends	1,494	3,989	3,928	4,191	4,636	5,028
(v) Mixed income of self-employed[1]	16,112	28,811	33,844	35,081	37,135	47,699
(vi) Net domestic product	34,519	66,987	75,769	81,279	88,219	1,06,209

1. Income of own account workers and profits of un-incorporated enterprises.

TABLE 11·7

EMPLOYMENT IN ORGANISED SECTOR

(In lakh)

	March 1975	March 1976	March 1978	March 1979	March 1980	March 1981
Public Sector						
Central Government	29·89	30·47	30·96	31·34	31·78	31·95
State Government	47·68	49·39	51·60	53·09	54·78	57·54
Quasi-government	31·92	33·92	39·29	41·70	43·43	45·49
Local bodies	19·41	19·85	20·15	20·63	20·80	19·86
TOTAL	128·90	133·63	142.00	146·76	150·79	154·84
Private sector (non-agricultural)						
Larger establishments (employing 25 or more workers)	60·90	61·13	63·22	64·65	64·84	66·00
Smaller establishments (employing 10 to 24 workers)	7·09	7·31	7·21	7·43	7·42	7·95
Total	67·99	68·44	70·43	72·08	72·26	73·95
Grand Total	196·89	202·07	212·43	218·84	223·05	228·79

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Employment in Organised Sector

The data collected under Employment Market Information give an idea of employment in the organised sector covering the entire public sector and those establishments in the non-agricultural private sector employing 10 or more persons.

Employment in the organised sector as from March 1975 to March 1981 has been shown in table 11.7. The table also shows that during the Fifth Plan 29.07 lakh more persons—24.99 lakh in the public sector and 4.08 lakh in the private sector—got employment. The increase in employment during the last year of the plan period, was 7.02 lakh jobs, of which the public sector alone provided for 5.43 lakh and private sector 1.59 lakh. There has been an increase of 5.74 lakh in employment in 1981 over 1980. This increase is mainly in the public sector (4.06 lakh).

Unemployment

The number of persons on the live register of employment exchanges also gives an idea of the trend of unemployment, subject to certain limitations. Employment exchanges cover mainly urban areas. Registration with the employment exchanges being voluntary, not all the unemployed register their names in the exchanges. Further, some of the registrants are already employed but have registered for seeking better employment. The number of job-seekers on the live registers of employment exchanges increased from 34.23 lakh as on 31 December 1969 to 162 lakh as on 31 December 1980 and 178 lakh as on 31 December 1981. Table 11.8 gives the occupational distribution of registrants with the employment exchanges as on 31 December 1981.

TABLE 11·8
APPLICANTS ON THE LIVE REGISTER OF EMPLOYMENT EXCHANGES

Occupational group	Number as on 31 December 1981 ('000)	Percentage to total
Professional, technical and related workers	836·4	4·7
Administrative, executive and managerial workers	10·2	0·1
Clerical and related workers	951·1	5·3
Sales workers	2·9	—
Farmers, fishermen, hunters, loggers and related workers	83·7	0·5
Service workers	446·7	2·5
Production and related workers, transport equipment operators and labourers	1,523·8	8·5
Workers not classified by occupations		
(a) Below matric including illiterates and others	6,247·6	35·0
(b) Matric and above but below graduates	6,405·0	35·9
(c) Graduates and above	1,330·7	7·5
Total	17,838·1	100·0

NATIONAL SAMPLE SURVEY ORGANISATION

The National Sample Survey (NSS) was set up in 1950 with the aim of obtaining comprehensive and continuing information relating to social, economic, demographic, industrial and agricultural statistics through sample surveys on a countrywide basis. In 1970, a National Sample Survey Organisation (NSSO) was created and the National Sample Survey was made a part of the new organisation. The NSSO has four divisions, namely, (i) Survey, Design and Research, (ii) Field Operations, (iii) Data Processing, and (iv) Economic Analysis to

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conduct its sampling enquiries. The activities of NSSO are governed by a governing council. Five zonal training centres have been set up for imparting training to the technical staff of the field operation divisions.

The activities of NSSO cover the fields of socio-economic, industrial and agricultural statistics. The socio-economic surveys are carried out annually on different subjects in collaboration with the state statistical bureaux. The subject programme conforms to a well defined cycle of surveys extending over a period of ten years. These include surveys on (i) demography, health and family welfare, (ii) asset, debt and investment, (iii) land holdings and livestock enterprises to be repeated once in ten years, (iv) employment, rural labour and consumer expenditure, and (v) unorganised enterprises in non-agricultural sector to be repeated once in five years. Surveys on other subjects of interests to users are either dovetailed with one of the foregoing surveys or taken in a year open to other topics.

The Annual Survey of Industries, covering over 50,000 manufacturing establishments registered under the Factories Act, 1948, provides information on capital investment, quantity and value of the goods manufactured, value added by manufacture, employment and emoluments. The collection of data is made by NSSO while the data are tabulated and results published by the Central Statistical Organisation. Industrial statistics are obtained under the Collection of Statistics Act, 1953.

In the field of agricultural statistics, NSSO provides technical guidance to the states for the conduct of crop estimation surveys. A scheme for improvement of crop statistics has been in operation since 1973-74 to help locate areas of weakness and to take necessary remedial measures.

An idea of the scale of survey operations NSSO undertakes can be had from the fact that the socio-economic surveys in each annual round cover about two lakh house-holds spread over 9,000 sample villages and 5,000 sample urban blocks. The check of area and yield of crops are spread over 5,000 sample villages and 15,000 crop-cutting experiments. State governments participate in the socio-economic and agricultural surveys, canvassing a matching sample of the same size as the central sample; some states do even more. In respect of Annual Survey of Industries too, some states collect data from non-census factories, not covered in a given year by the NSSO.

The NSSO, as a major fact finding body, occupies a unique position in the nation's statistical system. Over the years, it has enlarged and diversified the data base, specially, in areas which are vital for development planning.

The findings from the National Sample Surveys have been brought out in the form of individual reports, each covering a particular aspect for all the states. The NSSO has now a journal of its own, namely, *Sarvekshana* and the results are being published in the journal for individual states as and when they become available.

The NSSO conducted a nation-wide sample survey of disabled persons in 1981 which was observed as the International Year of Disabled Persons. The aim of this survey was to bring out information on the nature and extent of the disability, its causes, the extent of facilities available for medical rehabilitation and the gaps in the facilities as felt by the beneficiaries.

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The NSSO is carrying out a survey of landholdings and livestock holdings and assets, debts and investments since January 1982.

Prices

The index numbers of wholesale prices have been revised from base 1961-62=100 to 1970-71=100 and the old series were discontinued from April 1977.

In the revised classification, commodities are distributed under three major groups, namely (i) primary articles, (ii) fuel power, light and lubricants and (iii) manufactured products.

The first group has been further divided into three sub-groups namely, (i) food articles, (ii) non-food articles and (iii) minerals. The primary articles group is broadly comparable with the two groups of the old classification, viz., "food articles" and "industrial raw-materials" with certain minor adjustments. The third group "manufactured products" contains sub-groups under which semi-manufactured and manufactured products have been classified. In the old classification, the group manufacturers was divided into two sub-groups "intermediate products" and "finished products".

Table 11.9 gives the index numbers of wholesale prices for 1971-72 and from 1976-77 to 1981-82 and January 1983, December 1982 and January 1982 with revised base 1970-71=100.

Consumer Prices

The all-India working class consumer price index on base 1949=100 has been replaced by a new series of consumer price index numbers for industrial workers on base 1960=100 with effect from August 1968. Table 11.10 shows the consumer price index numbers for industrial workers for 1969-70 to 1981-82 along with indices for some selected centres, which are among the 50 centres covered and a weighed average of whose indices yield the All India Index.

Whereas in 1980-81, the all India general index showed an increase of 41 points over that of the previous year, during 1981-82, the all-India general index rose by 50 points and the all-India food index by 46 points.

TABLE 11.10

CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS

(Base : 1960=100)

Year	Bombay	Ahmedabad	Calcutta	Madras	Kanpur	Delhi	All India	
							All items	Food
1970-71 .	182	176	182	170	190	199	186	204
1971-72 .	190	181	187	182	196	211	192	205
1972-73 .	203	198	197	203	212	222	207	223
1973-74 .	233	245	228	229	251	265	250	279
1974-75 .	289	305	288	301	323	337	317	358
1975-76 .	300	293	287	314	299	333	313	342
1976-77 .	298	281	297	288	294	332	301	317
1977-78 .	318	310	320	311	330	358	324	345
1978-79 .	325	323	331	318	337	368	331	347
1979-80 .	359	348	351	350	357	389	360	373
1980-81 .	400	376	382	388	396	426	401	419
1981-82 .	460	441	414	446	—	472	451	—

Figures from February 1970 onwards are from the Labour Bureau's New Series on base 1960=100.

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TABLE 11·9

INDEX NUMBERS OF WHOLESALE PRICES

(Base : 1970-71 = 100)

Item	Weight	1971-72	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Jan., 83	Dec., 82	Jan., 82
I. Primary articles	416·67	100·9	167·2	183·8	181·1	206·5	237·5	264·4	274·7	272·8	267·7
Food articles	297·99	101·1	155·3	173·6	172·4	186·6	207·9	235·1	247·7	245·8	238·4
Non-food articles	106·21	98·6	167·4	178·0	170·4	194·6	217·7	240·5	250·7	249·3	245·9
Fibres	31·73	106·6	184·9	185·2	169·3	168·1	179·7	215·7	192·8	188·4	217·5
Oilseeds	42·01	89·9	150·8	183·5	158·9	185·7	230·7	253·8	258·8	258·7	249·2
Minerals	12·47	115·4	449·4	477·0	490·7	779·9	1,110·2	1,168·6	1,122·4	1,122·4	1,152·5
II. Fuel, power, light and lubricants	84·59	105·9	230·8	234·3	244·7	283·1	354·3	427·5	457·8	457·2	437·6
III. Manufactured products	498·74	109·5	175·2	179·2	179·5	215·8	257·3	270·6	270·6	270·1	265·8
Food products	133·22	118·4	189·1	184·3	157·0	214·8	308·7	298·9	249·8	252·0	268·0
Beverages, tobacco and tobacco products	27·08	106·8	168·2	171·2	178·2	186·6	210·7	217·4	215·9	215·5	216·6
Textiles	110·26	109·6	155·3	172·8	179·0	203·2	212·7	223·9	236·0	233·0	223·1
Paper and paper products	8·51	110·4	180·1	184·5	196·0	237·4	262·2	282·2	298·6	298·2	299·4
Leather and leather products	3·85	115·7	227·8	228·2	265·4	345·0	380·1	368·0	363·7	362·1	361·6
Rubber and rubber products	12·07	101·7	157·2	156·9	181·9	215·9	248·8	284·7	306·5	306·5	293·3
Chemical and chemical products	55·48	101·5	171·4	172·8	177·2	198·7	241·3	260·2	270·4	271·2	264·4
Non-metallic mineral products	14·15	109·3	191·0	194·6	213·7	249·5	278·7	311·7	376·7	375·3	316·6
Basic metals, alloys and metal products	59·74	104·7	190·1	193·8	211·2	251·9	272·1	317·1	359.7	357·1	333·3
Machinery and transport equipment	67·18	105·3	170·1	172·6	183·9	215·9	239·4	265·1	277·7	276·8	270·6
Miscellaneous products	7·20	102·5	166·0	179·4	187·8	209·8	232.8	239·5	243·5	242·6	239·8
IV. All commodities	1,000·00	105·6	176·6	185·8	185·8	217·6	257·3	281·3	288·1	287·1	281.1

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Table 11·11 gives the index numbers of consumer prices for urban non-manual employees for 1970-71 to 1980-81.

TABLE 11·11
CONSUMER PRICE INDEX NUMBERS; FOR URBAN NON-MANUAL EMPLOYEES

Base : 1960=100

Year	Bombay	Calcutta	Madras	Delhi/ New Delhi	All India
1970-71 . .	168	170	175	174	174
1971-72 . .	172	174	188	180	180
1972-73 . .	183	180	203	190	192
1973-74 . .	204	204	231	217	221
1975-76 . .	246	243	306	273	227
1976-77 . .	255	251	294	274	277
1977-78 . .	269	265	311	288	296
1978-79 . .	285	279	321	303	306
1979-80 . .	315	297	350	321	330
1980-81 . .	347	331	390	352	369
1981-82 . .	393	367	439	395	413

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12 FINANCE

PUBLIC FINANCE

The power to raise and disburse public funds has been divided under the Constitution between the Union Government and state governments. There are thus more than one budget and more than one public treasury in the country. The sources of revenue for the union and the states are, by and large, mutually exclusive, if shareable taxes and duties between them are excluded.

The Constitution provides that (i) no tax can be levied or collected except by authority of law, (ii) no expenditure can be incurred from public funds, except in the manner provided in the Constitution, and (iii) the executive authorities must spend public money only in the manner sanctioned by Parliament in the case of the union and by the state legislature in the case of a state.

All receipts and disbursements of the Union Government are kept under two separate headings, namely, the Consolidated Fund of India and the Public Account of India. All revenues received, loans raised and money received in repayment of loans by the Union Government go to form the Consolidated Fund. No money can be withdrawn from this Fund except under the authority of an Act of Parliament. All other receipts, such as, deposits, service funds and remittances go into the Public Account, and the disbursements therefrom are not subject to the vote of Parliament. To meet unforeseen needs, not provided in the Annual Appropriation Act, a Contingency Fund of India has also been established under Article 267(1) of the Constitution.

The Constitution provides for the establishment of a Consolidated Fund, a Public Account and a Contingency Fund for each state.

The Railways, the largest public undertaking presents their budget separately to Parliament. The appropriations and disbusements under the railway budget are subject to the same form of Parliamentary control as other appropriations and disbursements. However, as the railway's have no separate cash balance of their own, the total receipts

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and disbursements of the railways are incorporated in the budget of the Union Government as part of the General Budget.

Sources of Revenue

The main sources of union revenues are customs duties, union excise duties and the corporation and income taxes. The Railways and Posts and Telegraphs also pay to the Union Government dividend on the capital invested in them.

The main heads of revenue in the states are the taxes and duties levied by state governments, the share of taxes levied by the Union Government and grants received from the Union. Property taxes and octroi and terminal taxes are the mainstay of local finance.

Transfer of Resources

The devolution of resources from the Union to the states is a salient feature of the system of federal finance in India. Apart from their share of taxes and duties, state governments receive statutory and other grants as well as loans for various development and non-development purposes. The total amount of resources transferred to the states during each Plan period is shown in table 12.1.

TABLE 12·1 RESOURCES TRANSFERRED TO STATES

(*Rs in crore*)

Period	Taxes and Duties	Grants	Loans	Total (2+3+4)
First Plan	344	288	799	1,431
Second Plan	668	789	1,411	2,868
Third Plan	1,196	1,304	3,100	5,600
Annual Plans				
1966-67	373	419	916	1,708
1967-68	417	471	869	1,757
1968-69	492	499	891	1,882
	1,282	1,389	2,676	5,347
Fourth Plan	4,562	3,831	6,708	15,101
Fifth Plan				
1974-75	1,229	1,020	1,076	—
1975-76	1,599	1,219	1,274	—
1976-77	1,690	1,548	1,447	—
1977-78	1,798	1,877	1,908	—
1978-79	1,957	2,533	3,260	—
	8,273	8,197	8,965	—
Annual Plan				
1979-80	3,406	2,288	2,697	—
Sixth Plan				
1980-81	3,791	2,652	3,087	—
1981-82	4,274	2,727	3,522	—
1982-83	4,639	3,488	6,075	—
1983-84	5,088	3,942	4,164	—

Finance Commission

Under the Constitution, a Finance Commission is to be constituted every fifth year or at such earlier time as the President considers necessary to make recommendations to the President as to (i) the distribution between the Union and the states of the net proceeds of taxes which are to be, or may be divided between them under the Constitution and the allocation between the states of the respective shares of such proceeds; (ii) the principles which should govern the

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grants-in-aid of the revenues of the states in need of such assistance out of the Consolidated Fund of India, and (iii) any other matter referred to the Commission by the President in the interest of sound finance. The recommendations of the Commission together with an explanatory memorandum as to the action taken thereon are laid before each House of Parliament. Eight Finance Commissions had been constituted since the commencement of the Constitution. The Eighth Finance Commission is scheduled to submit its recommendations by the end of 1983.

The Seventh Commission submitted its report in October 1978. All the recommendations of the Commission except those relating to grant-in-aid to compensate the loss in excise revenue consequent on the introduction of prohibition and conversion of outstanding small savings loans into "loans in perpetuity" have been accepted by the Government. The Commission had raised the share of the states in income-tax pool from 80 to 85 per cent and doubled the share of the states in basic excise duties other than the duty on electricity. In the case of excise duty on electricity, the net proceeds were to be passed on to states from where they were collected. The Commission had recommended grants totalling Rs 1,173 crore during the period 1979-84 to eight states which were likely to have gap in their revenue account as per the Commission's assessment. In addition, the Commission had also recommended Rs 437 crore to 17 out of 22 states for upgradation of standards in certain sectors of administration like police, justice, revenue, district and tribal administration, etc.

To enable the states to meet their non-plan capital gap, the Commission had recommended a scheme for relief in the repayment of outstanding central loans to the Union Government. It envisages write off central loans to the extent of Rs 943 crore. The consolidation of outstanding central loans as on 31 March 1979 is expected to give a debt relief of Rs 2,156 crore to the states during 1979-84.

For financing relief expenditure, the Commission had made larger annual provisions in its re-assessments of the forecast on receipts and expenditure of the states. For drought relief expenditure in excess of the amount allowed by the Commission, the states are expected to make a contribution from their plan expenditure not exceeding 5 per cent. The requirement of states for drought relief expenditure over and above the annual amount permitted by the Commission and contribution of the states, is to be met by the Union Government by way of assistance, half as grant and half as loans. In case of natural calamities like floods, cyclones and others, the Union Government's relief assistance is to be made available as non-plan grant to the extent of 75 per cent of the total expenditure in excess of the annual amount provided in the Commission's assessment. The transfers under the Commission's award as per its estimates during 1979-84 will be of the order of Rs 23,063 crore.

Budgetary Position

Table 12.2 shows the budgetary position of the Union Government from 1976-77 onwards.

Annual Financial Statement or Budget

An estimate of all anticipated receipts and expenditure of the Union Government for the ensuing financial year is laid before Parliament on the last working day of February every year. This is known as the

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Table 12 ·2

BUDGETARY POSITION OF THE GOVERNMENT OF INDIA

(Rs in crore)

Major Head	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83 Revised estimates	1983-84 Budget estimates
I. Revenue Account								
A. Revenue	8,721 ·29	9,792 ·11	11,240 ·14	11,337 ·30	12,828 ·35	15,574 ·19	18,117 ·05	20,593 ·93
B. Expenditure	8,440 ·96	9,363 ·10	10,948 ·02	12,033 ·48	14,530 ·44	15,867 ·63	19,414 ·99	22,418 ·87
C. Surplus (+) or Deficit (—)	(+)280 ·33	(+)429 ·01	(+)292 ·12	(—)696 ·18	(—)1,701 ·89	(—)293 ·44	(—)1,297 ·94	(—)1,824 ·94
II. Capital Account								
A. Receipts	5,033 ·45	5,227 ·12	6,283 ·42	5,478 ·97	8,872 ·00	9,448 ·43	12,445 ·62	12,655 ·98
B. Disbursements	5,367 ·91	6,398 ·24	8,083 ·97	7,159 ·51	9,646 ·44	10,546 ·89	14,825 ·96	12,417 ·16
C. Surplus (+) or Deficit (—)	(—)334 ·46	(—)1,171 ·10	(—)1,800 ·55	(—)1,680 ·84	(—)774 ·44	(—)1,098 ·46	(—)2,380 ·34	(+)238 ·82
III. Overall surplus (+) or Deficit (—) Financed by	(—)54 ·13	(—)742 ·11	(—)1,508 .43	(—)2,377 ·02	(—)2,476 ·33	(—)1,391 ·90	(—)3,678 ·28	(—)1,586 ·12
A. Increase (+) or Decrease (—) in Treasury Bills	(—)441 ·81	(—)3,250 ·69	(+)1,010 ·53	(+)2,587 ·89	(—)2,654 ·56	(—)921 ·80[1]	(—)3,461 ·00	(—)1,586 ·11
B. Cash Balance								
Opening	855 ·63	359 ·69	2,868 ·27	349 ·53	560 ·40	738 ·63	268 ·53	51 ·25
Closing	359 ·69	2,868 ·27	349 ·31	560 ·40	738 ·63	268 ·53	51 ·25	51 ·24
Increase (+) or Decrease(—)	(—)495 ·94	(+)2,508 ·58	(—)2,518 ·96	(—)210 ·87	(+)178 ·23	(—)470 ·10	(—)217 ·28	0. 01

1. Includes Rs 3,500 crore worth of ad hoc treasury bills converted into special securities.

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'Annual Financial Statement' or the 'Budget' and covers the Central Government's transactions of all kinds in and outside India occurring during the year in which the statement is prepared as well as the ensuing year or the Budget Year as it is known.

The presentation of the Budget is followed by a general discussion on it in both the Houses of Parliament. The estimates of expenditure from the Consolidated Fund of India are also placed before the Lok Sabha in the form of 'Demands for Grants' along with the budget. All withdrawals of money from the Consolidated Fund are thereafter authorised by an Appropriation Act passed by Parliament every year. The tax proposals of the Budget are embodied in another bill which is passed as the 'Finance Act' of the year.

Estimates of receipts and expenditure are similarly presented by state governments to their legislatures before the beginning of the financial year and legislative sanction for expenditure is secured through similar procedure.

AUDIT AND ACCOUNTS

In 1976-77 a major reform was introduced in the financial and accounts administration, when departmentalised system of accounts came into existence in all the Central Ministries and Departments. The Comptroller and Auditor General was relieved of the responsibility for compiling their accounts. This reform was taken up to ensure timely flow of information about progress of expenditure on projects and to facilitate effective monitoring of and control over expenditure and receipts of Government.

Controller General of Accounts

An organisation known as the Controller General of Accounts (CGA) was set up as part of the Ministry of Finance (Department of Expenditure) in October 1976 after the separation of accounts from audit, for dealing with various accounting matters, which *inter alia* include the functions of prescribing the form of Accounts relating to Union or state governments; and laying down accounting procedures overseeing the maintenance of adequate standards of accounting by Central Civil Accounts Offices; consolidation of monthly and annual accounts of the Government of India (including preparation of Summary Civil Appropriation Accounts), coordination and assistance in the introduction of Management Accounting Systems in Civil Ministries or Departments, administration of rules framed under Article 283 of the Constitution relating to the custody of the Consolidated Fund of India and the Contingency Fund of India; the payment, audit and withdrawal of money from these funds and the custody, etc., of moneys in the Public Accounts of India.

CGA now prepares the condensed form of the Appropriation Accounts (Civil) and the Finance Accounts of the Union Government, which after audit by the Comptroller and Auditor General, are placed on the tables of both Houses of Parliament, along with reports of the Comptroller and Auditor General thereon.

Accounts of the union territories of Delhi, Andaman and Nicobar Islands, Pondicherry and Goa, Daman and Diu are also separated from audit.

However, in states, accounts have not been separated from audit and the Comptroller and Auditor General, not only maintains their accounts but also audits the receipts and expenditure of the state governments and his reports on the accounts along with the annual

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accounts prepared by him are submitted to the respective Governors for having them laid before legislatures.

ORGANISATIONS

The Department of Revenue exercises control vested in it in respect of revenue matters relating to all direct and indirect Union taxes through two statutory Boards under it, viz., the Central Board of Direct Taxes and the Central Board of Excise and Customs. Matters relating to the levy and collection of all direct taxes are looked after by the Central Board of Direct Taxes, whereas those relating to the levy and collection of customs and central excise duties fall within the purview of the Central Board of Excise and Customs. The two statutory Boards were constituted under the Central Boards of Revenue Act, 1963. These Boards also function as the Direct Taxes Wing and the Indirect Taxes Wing respectively of the Department of Revenue.

Income tax

The number of persons paying direct tax, as on 31 March 1982 was 46.61 lakh. The interest tax and Hotel Receipt tax have been introduced from 1 July 1980 and February 1981 respectively. The net collection from Income tax (including Corporation tax), interest tax and Hotel Receipts tax is to the tune of Rs 3,445.56 crore, Rs 231.67 crore and Rs 2.32 crore respectively and from wealth tax Rs 86.89 crore, from Estate Duty Rs 19.95 crore and Gift tax Rs 7.51 crore.

Table 12.3 gives the incidence of income tax at selected levels of income of individuals at 1983-84 tax rates.

TABLE 12·3 INCIDENCE OF INCOME TAX AT SELECTED LEVELS

Income (Rs)	Tax (including surcharge at the rate of 10 per cent) (Rs)	Effective rate (per cent)
15,000	nil	nil
20,000	1,650	8·25
25,000	3,300	13·20
30,000	5,170	17·23
40,000	9,570	23·93
50,000	13,970	27·94
60,000	19,470	32·45
70,000	25,245	36·06
80,000	31,295	39·12
90,000	37,483	41·65
1,00,000	43,808	43·81
1,50,000	76,808	51·21
2,00,000	1,09,808	54·90
2,50,000	1,42,808	57·12
3,00,000	1,75,808	58·60
4,00,000	2,41,808	60·45
5,00,000	3,07,808	61·56
10,00,000	6,37,808	63·78

The Estate Duty (Amendment) Act, 1982 has brought the following changes: (a) the exemption limit under the Estate Duty Act has been raised from Rs 50,000 to Rs 1,50,000 and the rate schedule for levy of estate duty has been restructured in respect of estates of persons who have died on or after 1 March 1981; (b) where the deceased was a member of cooperative society and building or part thereof allotted or leased to him under a house-building scheme of the society continued to remain allotted or leased at the time of death he will be deemed to be the owner of such building or part thereof. However, the oustanding instalments of amounts payable by the deceased to the society will be allowed as debt owed by the deceased in determining the value of such building or part thereof; (c) the

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principal value of one residential house or part thereof belonging to the deceased is to be taken at the same value as determined for purposes of wealth tax.

The levy of Hotel Receipts tax in relation to chargeable receipts accruing or arising or received after 27 February 1982 has been discontinued.

Combating Tax Evasion

Combating tax evasion is an important function of the Income-tax Department. During the period from 1 April 1982 to March 1983 4,291 search and seizure operations have been carried out resulting in the seizures of assets valued at Rs 27.96 crore. Books of accounts and documents have been seized in a large number of cases. The powers of search and seizure are utilised only in cases where there is reliable information suggesting concealment which cannot be brought to surface through other means available under the Income-tax Act. Besides, strengthening the Department's intelligence agency, wide coverage is also given in the media in respect of major cases of detection of concealed income. The object is to create a deterrant impact and improve the standard of voluntary compliance with the tax laws.

Combating Smuggling

The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976 is to combat the menace of smuggling and foreign exchange racketeering in the country. It seeks to forfeit the illegally acquired properties (movable and immovable) of the smugglers, foreign exchange manipulators and of their relatives and associates.

Under the Act five competent authorities with their headquarters at Delhi, Madras, Bombay, Calcutta and Ahmadabad have been appointed for implementation of the Act. The competent authorities have issued orders in 1,515 cases, involving properties both movable and immovable which amount to Rs 13.06 crore approximately in value upto 31 March 1983. Forfeiture proceedings have been initiated in respect of 2,336 cases (including 1,515 cases as above wherein orders of forfeiture have been passed) and the approximate value of the properties covered (both movable and immovable) by these proceedings is Rs 37.16 crore approximately.

STOCK EXCHANGES

Stock Exchanges play a crucial role in mobilisation of resources for the private corporate sector.

There are 12 Stock Exchanges in the country today recognised under the Securities Contracts (Regulation) Act, 1976 located at Bombay, Calcutta, Madras, Delhi, Ahmadabad, Ludhiana, Kanpur, Indore, Pune, Hyderabad, Bangalore and Cochin. While Stock Exchanges are being administered by their Governing Boards and the Executive Chiefs, policies relating to their regulations and control are laid down by the Stock Exchange Division of the Ministry of Finance.

There has been a remarkable buoyancy in the new issues market during the last two years. While the capital raised in 1980-81 through prospectus was Rs 112.93 crore by 192 companies, it spurted to Rs 453.25 crore by 351 companies in 1981-82. In 1982-83, 559 companies raised Rs 429.51 crore.

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TABLE 12·4

PUBLIC DEBT OF THE GOVERNMENT OF INDIA

(Rs in crore)

	1950-51	1960-61	1965-66	1979-80	1980-81	1981-82 RE	1982-83 RE	1983-84 BE
A. Internal Debt								
(i) Market Loans	1438·46	2555·72	3415·27	12945·90	15625·65	18458·68	22259·14	26259·56
(ii) Market Loans in course of repayment	6·49	22·73	33·72	51·60	50·64	53·39	53·39	53·39
(iii) Treasury Bills	358·02	1106·29	1611·82	10196·17	12850·73	10272·53	13733·53	15319·64
(iv) Special Bearer Bonds	—	—	—	—	—	964·59	964·59	964·59
(v) Compensation and other Bonds	—	19·08	15·13	65·45	212·12	258·62	483·46	738·30
(vi) Special floating and other Loans	212·60	274·18	340·70	1060·33	2124·85	1535·85	1673·03	1749·31
(vii) Treasury Deposit receipt and other floating Loans	6·73	—	—	—	—	—	—	—
(viii) Special Securities issued to the Reserve Bank	—	—	—	—	—	4110·00	4210·00	4300·00
Total Internal Debt	2022·30	3978·00	5416·64	24319·45	30863·99	35653·66	43377·14	49384·79
. External Debt	32·03	760·96	2590·62	9963·96	11298·03	12327·74	13722·54	15327·97
Total Public Debt	2054·33	4738·96	8007·26	34283·41	42162·02	47981·40	57099·68	64712·76

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PUBLIC DEBT

The outstanding public debt of the Government of India is estimated to be Rs 64,713 crore at the end of 1983-84. Table 12.4 gives an analysis of the public debt outstanding at the end of selected years since 1950-51.

MONETARY AGGREGATE AND CURRENCY

Money supply comprises currency with the public, and demand deposits with the banks including the Reserve Bank of India, withdrawable on demand. The money supply with the public (MI) stood at Rs 24,584 crore at the end of 1981, of which currency with the public accounted for Rs 13,764 crore and deposit money Rs 10,820 crore. In 1981, money supply showed an increase of Rs 2,922 crore as compared with that of Rs 3,119 crore in 1980. Component-wise currency with the public and deposit money witnessed increases of Rs 1,173 crore and Rs 1,749 crore respectively during 1981 as compared with the expansion of Rs 1,794 crore and Rs 1,325 crore respectively in 1980. The trends in money supply and its components since 1975 are indicated in table 12.5.

(Rs in crore)

TABLE 12·5 MONEY SUPPLY WITH THE PUBLIC

End of December	Currency with the Public		Deposit money with the Public		Money supply with the Public	
	Amount	Annual Variation	Amount	Annual Variation	Amount	Annual Variation
1975 . .	6,433	305	6,270	785	12,653	1,090
1976 . .	7,318	+885	7,887	+1,617	15,205	+2,552
1977 . .	8,410	+1092	9,341	—1454	17,751	+2,546
1978 . .	9,454	+1044	7,020	—2321	16,474	—1,277
1979 . .	10,797	+1343	7,746	+726	18,543	+2,069
1980 . .	12,591	+1794	9,071	+1325	21,662	+3,119
1981 . .	13,764	+1173	10,820	+1749	24,584	+2,922
1982 . .	15,805	+2041	11,817	+997	27,622	+3,038

P= Provisional.

Note: The data for 1978 onwards are not comparable with the data for earlier years because from 1978 onwards scheduled commercial banks have classified a larger proportion of their savings deposits as time liabilities and a lower proportion as demand liabilities on the basis of a new classification. Therefore, the data on deposit money with the public and money supply with the public are not comparable with those of earlier years.

During 1981, the expansion of money supply with the public at Rs 2,922 crore was lower than that of Rs 3,119 crore in 1980. This smaller growth of money supply during 1981 was brought about largely by a smaller expansion in net bank credit to government sector by Rs 5,348 crore compared with the increase of Rs 5,775 crore in previous year. The rise of Rs 7,341 crore in bank credit to commercial sector in 1981 was, however, higher than that of Rs 4,853 crore in 1980. Government currency liabilities to the public rose up by Rs 28 crore as compared to a rise of Rs 15 crore at the end of 1980. The expansionary impact of these factors on money supply was partly reduced by a decline of Rs 1,493 crore in net foreign exchange assets of banking sector compared to the decline of Rs 1,002 crore in 1980 and increase of Rs 8,302 crore in its non-monetary liabilities compared with the rise of Rs 4,522 crore last year.

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Money supply showed further increase of Rs 3,038 crore to Rs 27,622 crore during 1982. Component-wise currency with the public and deposit money were Rs 15,805 crore and Rs 11,817 crore respectively at the end of 1982. As in 1981, monetary expansion during 1982 was largely due to substantial increase of Rs 5,976 in net bank credit to government sector compared with that of Rs 5,348 crore last year. The increase in bank credit to commercial sector was of the order of Rs 5,757 crore, which was lower than Rs 7,341 crore in 1981 played secondary role in monetary expansion. Government's currency liabilities to the public rose by Rs 8 crore in 1982. The growth in money supply was moderated by decrease of Rs 1,704 crore in net foreign exchange assets of banking sector and an increase of Rs 6,999 crore in its non-monetary liabilities during 1982.

Currency

During 1980, currency in circulation recorded an increase of Rs 1,886 crore (to Rs 13,480 crore) as compared with Rs 1,406 crore in 1979.

The expansion of Rs 1,203 crore in currency in circulation during 1981 was shared by two components. Bank notes, rupee coin (including one rupee notes) increased by Rs 1,195 crore and Rs 8 crore respectively. On the other hand, in 1980 bank notes and small coins increased by Rs 1,871 crore and Rs 12 crore respectively. Rupee coin (including one rupee notes) also went up by Rs 3 crore. At the end of 1981 bank notes, rupee coin (including one rupee notes) and small coin in circulation stood at Rs 14,069 crore, Rs 338 crore and Rs 276 crore respectively.

BANKING

The commercial banking system in India consisted of 201 scheduled commercial banks[1] and 4 non-scheduled commercial banks at the end of June 1982.

Composition

Of the 201 scheduled commercial banks, 149 are in the public sector and these account for about 90 per cent of the commercial banking system. Within the public sector banking system, 121 banks are regional rural banks, specially set up to increase the flow of credit to smaller borrowers in the rural areas. These banks have specified areas of operations—usually limited to one or more districts. Their lending operations are also directed towards specified weaker sections of the community. They also undertake some other commercial banking business. The remaining 28 banks in the public sector are regular commercial banks and transact all types of commercial banking business.

Some important indicators in regard to progress of commercial banking in India during the recent past is shown in table 12.6.

Amongst the public sector banks, the State Bank of India is the biggest until with over 6,100 branches and deposits of over Rs 11,000 crore and advances of over Rs 8.000 crore. Apart from the main State Bank, there are 7 other banks called associate banks of State Bank of India. In these banks the State Bank of India owns either

1. According to a notification under the Reserve Bank's Act, banks which have not less than Rs 5 lakh as capital and reserve can alone be scheduled by the Reserve Bank.

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TABLE 12·6

INDICATOR OF PROGRESS OF COMMERCIAL BANKING IN INDIA

Item	June 1969	June 1973	June 1976	June 1977	June 1978	June 1979	June 1980	June 1981	June 1982
Number of Commercial Banks	89	83	100	126	128	136	153	187	205
(i) Scheduled Commercial Banks	73	74	92	119	122	131	148	183	201
(ii) Regional Rural Banks	—	—	19	48	48	56	73	102	121
(iii) Non-Scheduled Commercial Banks	16	9	8	7	6	5	5	4	4
Number of Offices in India	8,262	15,362	21,220	24,802	28,016	30,202	32,419	35,707	39,177
Population per Office[1] (in thousands)	65	37	29	25	23	21	20	19	17
Aggregate deposits of Scheduled Commercial Banks (Rs crore)	4,646	9,165	15,178	18,903	23,313	28,671	33,377	40,549	46,128
Aggregate credit of Scheduled Commercial Banks (Rs crore)	3,599	6,412	11,476	13,491	15,694	19,116	22,068	26,551	30,180
Per capita deposits of Scheduled Commercial Banks (Rs)[1]	88	160	249	305	369	447	512	556	701
Per capita credit of Scheduled Commercial Banks (Rs)[1]	68	112	188	217	249	298	339	371	459
Deposits as percentage of National Income (at current prices)[2]	15·5	21·4	23·3	27·1	31·9	33·7	35·2	36·5	Not available

1. Based on mid-year population figures estimated by the Registrar General of India upto June 1980. For June 1981 and 1982 based on 1981 Census.

2. Relates to end-March, National Income data relate to revised series.

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the entire or the majority of the share capital. The State Bank and its associate banks as a group account for roughly 30 per cent of the aggregate banking business in the country and 33 per cent of the business conducted by the public sector banks. The other 20 banks in the public sector are known as nationalised banks 14 of which came in the public sector on 19 July 1969 and 6 others on 15 April 1980. The philosophy of bank nationalisation was that these financial institutions which mobilise the savings of the public should broadly function as an instrument for promoting economic and social development in more purposive manner. In the post nationalisation period there has been a rapid growth of the banking system.

Branch Expansion

As against 8,262 branches at the end of June 1969, the total number of commercial bank branches at the end of December 1982, was 40,828. The net increase in the number of functioning offices between June 1969 and December 1982 was 32,566. Consequently the banking coverage in the country as a whole has been improved from one office for 65,000 persons in June 1969, to one office for 17,000 persons by the end of December 1982.

Coverage of Rural Areas

In the post nationalisation period, the thrust of the branch expansion policy has been on improving availability of banking facilities in rural areas. Of the addition to the branch network during June 1969 and December 1982, 60.9 per cent were at rural centres having population of less than 10,000 persons. The number of branches located in rural areas which was 1,860 as at the end of June 1969, rose to 21,648 in December 1982 accounting for 53 per cent of the total branches network.

The current policy seeks to further improve the banking coverage in the rural and semi-urban areas with the objective of achieving a coverage of one bank office on an average for population of 17,000 (based on 1981 Census) in rural and semi-urban areas by the end of March 1985. Greater attention will be paid on spatial distribution of the branch expansion with bulk of the programme being devoted to opening of branches at unbanked centres in under banked areas in community development blocks so as to improve intra-district imbalances. It is estimated that the level of coverage targeted by March 1985, will require opening of 7,540 branches (in addition to licences already with the banks) in the deficit districts.

Regional Rural Banks

Since 1975, a new category of banking institutions has been brought into existence in the form of regional rural banks to have increased local involvement of the banks for meeting the credit requirements of weaker sections, small and marginal farmers, landless labourers, artisans and small entrepreneurs. These banks have limited area of operation, their staff are drawn from the area or the state of their operation and they are required to lend only to weaker sections of the society. They have access to liberal refinance facilities from the National Bank for Agriculture and Rural Development (NABARD) and each of the banks sponsoring its regional rural banks. As at the end of December 1982, 124 such banks were working in the country. The number had increased to 142 by June 1983.

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At the end of December 1982 the regional rural banks had opened 6,191 branches, mobilised deposits to the tune of Rs 502 crore, and had outstanding advances amounting to nearly Rs 577 crore.

District Planning and Coordination

For facilitating coordinated effort on the part of all the banks to increase their involvement in well planned effort to promote credit based development of districts' economies and to ensure adequate support to beneficiary oriented development programmes, Lead Bank Scheme was introduced towards the close of 1969. In implementing the scheme the bank designated as the 'Lead Bank' for each district is expected to undertake district credit planning, involve other banks in the formulation of specific programme contents, allocate shares among various credit institutions operating in the district and bring about a coordinated effort on the part of all such institutions to deploy credit in support of identified programmes.

To secure coordination between the activities of different banks on the one hand and all the banks and district level agencies on the other, the district consultative committees presided over by the District Collector have been set up in all the districts covered under the Lead Bank Scheme. Functional standing committees have also been set up to deal with more important issues of immediate relevance.

Deposit Mobilisation

There has been a significant increase in the deposits of the scheduled commercial banks in the post-nationalisation period. At the end of June 1969, the deposits of these banks aggregated to Rs 4,646 crore—about 15.5 per cent of the national income at current prices. By end June 1981, they had increased to Rs 40,549 crore *i.e.* 36.5 per cent at the national income. The deposits of the scheduled commercial banks increased to Rs 46,128 crore and to Rs 50,671 crore by the end of June 1982 and December 1982 respectively. The deposits with banks in the public sector were Rs 3,871 crore in 1969. At the end of June 1982, they were Rs 41,849 crore which further increased to Rs 45,990 crore by the end of December 1982.

The deposits mobilised by the banks are utilised for two purposes : (i) investments in government securities and other approved securities in fulfilment of liquidify stipulations; and (ii) loans and advances to borrowers.

Commercial banks have been investing part of their deposits in government securities and bonds and debentures of government associated bodies, in pursuance of the liquidity requirements stipulated by the Reserve Bank. With the growth of their deposits as also owing to successive upward revisions of the Statutory Liquidity Ratio, there has been significant rise in the investments of the banks in government and other approved securities from Rs 1,727 crore in March 1970 to Rs 17,286 crore in March 1983. The investment of funds by scheduled commercial banks in such securities now constitutes an important constituent of the scheme of resources mobilisation for financing plan programmes.

Advances—in whatever form—constitute the end objective of bank's operation. From a low level of Rs 3,599 crore in June 1969, advances of scheduled commercial banks increased to Rs 30,180 crore by June 1982 and to Rs 33,238 crore by December 1982. Advances of banks in the public sector increased from Rs 3,017 crore to Rs 27,145 crore and Rs 29,873 crore over the same dates.

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Sectoral Deployment

More significant than the increase in the volume of bank credit are the changes in the sectoral deployment. In the pre-nationalisation days, large and medium industry and wholesale trade in the private sector accounted for over 78 per cent of the bank credit. By December 1980, the share of these sectors had declined to about 43 per cent. Correspondingly, the share of priority sectors, food procurement agencies, etc., had shown significant enlargement.

Advances to Priority Sector

Extension of credit to small borrowers in the hitherto neglected sectors of the economy has been one of the major tasks assigned to the public sector banks in the post nationalisation period. To achieve this objective, the banks have drawn up schemes to extend credit to small borrowers in sectors like agriculture, small scale industry, road and water transport, retail trade and small business, which traditionally had very little share in the credit extended by the banks. Taking into account the need to provide resource requirements of the weaker sections for specific needs, consumption credit (with certain limits and for specific needs) has been incorporated in the priority sectors. Similarly small housing loans (not exceeding Rs 5,000) to scheduled castes/tribes and other weaker sections are also classified as priority sector advances.

The number of borrowal accounts with the public sector banks for these categories of borrowers increased from 2.60 lakh to 148.06 lakh between June 1969 and June 1982. The amount outstanding during the same period increased from Rs 441 crore to Rs 10,305 crore. The share of these sectors in the total credit at the end of June 1982 was 38.1 per cent against 14.6 per cent in June 1969.

Table 12.7 shows the achievements of public sector banks in stepping up the flow of credit to various priority sectors.

TABLE 12·7 CREDIT FLOW TO PRIORITY SECTORS OF PUBLIC SECTOR BANKS

Sector	No. of Borrowal Accounts (in lakh)			Amount Outstanding (Rs in crore)		
	June 1969	June 1981	June 1982[1]	June 1969	June 1981	June 1982[1]
1. Agriculture						
(i) Direct Finance	1·60	84·96	90·22	40·21	2,954·66	3,447·14
(ii) Indirect Finance	0·04	12·03	10·70	122·12	926·01	1,085·16
2. Small Scale Industry[2]	0·51	8·44	9·54	251·07	3,350·79	3,748·55
3. Road and Water Transport Operators	0·02	3·04	3·68	5·49	746·34	988·03
4. Retail Trade and Small Business	0·33	18·24	20·25	19·37	677·50	749·00
5. Professional and Self-Employed	0·08	8·88	9·73	1·91	195·10	223·01
6. Education	0·01	0·40	0·43	0·80	11·01	13·25
Total	2·60	135·99	144·54	440·97	8,861·41	10,254·14
7. Housing	—	—	1·43	—	—	35·28
8. Consumption	—	—	2·09	—	—	15·84
Grand Total	2·60	135·99	148·06	440·97	8,861·41	10,305·26

1. Data are provisional and relate to State Bank of India Group plus 20 nationalised Banks.
2. Number of Units.

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Current Policy

During the recent past, the policy measures have been to ensure that the public sector banks not only enlarge the total volume of credit going to the priority sectors but also the proportion of it going to really smaller and poorer borrowers belonging to the weaker sections of the community. Thus, banks have not only been asked to step up their advances to priority sectors so as to take their share in aggregate credit to the level of 40 per cent by March 1985, they have also been asked to ensure that not less than 25 per cent of such priority sector advances go to the weaker section beneficiaries of the Revised 20-Point Programme. A broader concept of weaker section comprising small and marginal farmers, landless labourers, tenant farmers and share croppers, artisans, village and cottage industries, integrated rural development programme beneficiaries, scheduled castes and scheduled tribes and differential rate of interest (DRI) beneficiaries has been evolved for this purpose. For agriculture and allied activities, the stipulated proportion is 15 per cent of total credit by March 1985 and 16 per cent by March 1987.

Credit to Weaker Sections

Till the end of 1982, a limited weaker section concept was in operation in the sectors of agriculture and small industry sectors. This comprised small and marginal farmers and borrowers not requiring credit limits of more than Rs 10,000 in agriculture and artisans, village and cottage industries and units requiring composite credit limits of not more than Rs 25,000. By December 1982 these groups had outstanding credit assistance of Rs 1,474 crore in 65.4 lakh borrowal accounts in the agriculture sector and of Rs 310.3 crore in 6.3 lakh units in the small scale industry sectors. Together, they accounted for about 16 per cent of the priority sector advances of public sector banks.

People belonging to scheduled castes and scheduled tribes have been recognised as the most vulnerable section of the community. Banks have been asked to make special effort to assist them with adequate credit to enable them to undertake self-employment ventures or acquire income generating capital assets so as to improve their standard of living. As at the end of June 1982, public sector banks had assisted scheduled castes/scheduled tribes borrowers through 29 lakh accounts to the tune of Rs 521 crore.

Another measure of the thrust of the banks' lending efforts towards weaker sections is their involvement in and support to the integrated rural development programme which is directed towards those below the poverty line. The programme envisages capital subsidy and credit assistance to identified poor families for acquiring income generating assets to come up above the poverty line. Total term credit mobilised by the commercial and cooperative banking systems has been increasing year after year—Rs 236 crore in 1980-81, Rs 484 crore in 1981-82 and Rs 714 crore in 1982-83. The programme envisages a capital subsidy flow of Rs 1,500 crore during the Sixth Plan period with matching credit mobilisation of Rs 3,000 crore to benefit 1.5 crore families.

Interest Rate Structure

The lending rate structure of the scheduled commercial banks is weighted in favour of priority sector advances and within that category in favour of smaller/poorer borrowers.

Public sector banks are operating a scheme of differential rate of interest (DRI) under which poor borrowers having an annual family

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income of not more than Rs 2,000 in rural areas and Rs 3,000 in other areas and not owning more than one hectare of unirrigated or 0.4 hectare of irrigated land are given credit support at 4 per cent per annum rate of interest for sums upto Rs 5,000 as term loan and Rs 1,500 as working capital loan, for productive ventures. Public sector banks had outstanding DRI credit of Rs 305 crore against 32 lakh borrowal accounts as at the end of December 1982.

Housing loans upto Rs 5,000 to scheduled caste/scheduled tribe borrowers are also extended at 4 per cent per annum rate of interest.

Other loans such as those to small and marginal farmers and landless labourers for activities allied to agriculture, to artisans, village and cottage industries, to petty traders/vendors also carry concessional rate of interest—the degree of concession depending on the purpose of the loan and size of the loan.

National Bank for Agriculture and Rural Development

To foster the credit based programmes of agricultural development, particularly those requiring term credit, Agricultural Refinanced Development Corporation was providing refinance support to the banks. With the widening of the role of bank credit from 'agricultural development' to 'rural development', need was felt for a more broad based organisation at the apex level to extend support and give guidance to credit institutions in matter connected with formulation and implementation of rural development programmes. A National Bank for Agriculture and Rural Development (NABARD) was, therefore, set up. It started functioning from 12 July 1982. The Bank is an apex organisation with respect to all matters relating to policy, planning and operational aspects in the flow of credit for the promotion of agriculture, small scale industries, cottage and village industries, handicrafts and other rural crafts and other allied economic activities in rural areas. The Bank is a single integrated agency for meeting the credit needs of all types of agricultural and rural development activities and helps in the implementation of policies and programmes included in the Sixth Plan document.

Export Credit

Export sector continues to be accorded high priority in the matter of provision of bank credit. Credit is made available by commercial banks to the export sector both before shipment (packing credit) and also after shipment of goods.

Pre-shipment credit is available at a rate of 12 per cent per annum for a period of 180 days for specified medium and heavy engineering goods and construction contracts abroad and 90 days in respect of other categories of goods. Certain additional specified goods are eligible for export credit at concessional rate for a period of 180 days.

The post-shipment short term credit is made available by the banks at 12 per cent per annum. Deferred payment credit involving longer repayment schedules and relating to capital and engineering goods is extended at an interest rate of 8.65 per cent per annum. The Export-Import Bank of India also participates, wherever required, in the grant of medium and long term deferred payment credit and also in the various guarantees issued.

During 1981-82 outstanding export credit granted by the commercial banks reached a level of Rs 1,817 crore as against Rs 1,675 crore and Rs 1,640 crore reached in 1980-81 and 1979-80 respectively.

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Export-Import Bank of India

A new bank, Export-Import Bank of India, was set up on 1 January 1982. The bank commenced lending operations on 1 March 1982. The bank has taken over the operations of international finance wing of Industrial Development Bank of India. The Bank will, among other things, grant deferred payment credit of medium and long term duration for export of projects, capital goods, engineering goods and consultancy services and also issue and/or participate in guarantees; in consortium with commercial banks. Short-term export credit will continue to be mainly handled by commercial banks, however Export-Import Bank will handle such transactions when specially required. The Bank will also undertake merchant banking and development banking functions as considered necessary to finance promotional activities and undertake counselling services. It will also, wherever required, give refinance and rediscounting facilities to commercial banks.

Since commencing operations on 1 March 1982 till 30 June 1982 the EXIM Bank has extended assistance to the tune of Rs 133 crore consisting of Rs 24 crore of medium and long term loans, guarantees amounting to Rs 32 crore and rediscounting of export bills aggregating Rs 77 crore. During this period, EXIM Bank cleared 99 bids valued at more than Rs 3,700 crore in respect of construction contracts, turn key projects and supplies which would involve a total commitment of Rs 852 crore for the EXIM Bank.

Industrial Finance Corporation

The Industrial Finance Corporation of India (IFCI), established under an Act of Parliament in 1948, provides direct financial assistance in different forms to all eligible medium and large sized industrial projects set up or proposed to be set up in the country in the corporate and/or cooperate sectors. Since its inception and up to June 1982, the IFCI has sanctioned net financial assistance of Rs 1,553.51 crore and disbursed assistance amounting to Rs 1,122.1 crore.

State Financial Corporations

Eighteen state financial corporations provide industrial finance to medium and small-scale sectors. The total loans sanctioned by them during 1981-82 amounted to Rs 501.05 crore. The total loans sanctioned by the corporations since inception and up to March 1982 aggregated to Rs 2,429.90 crore.

Industrial Development Bank

The Industrial Development Bank of India (IDBI) was set up in 1964 to coordinate the activities of other financial institutions (including banks) to supplement their resources to plan and promote industries of key significance to the industrial structure, and to adopt and enforce a system of priorities in promoting future industrial growth. The IDBI was delinked from the Reserve Bank of India and made an autonomous corporation owned by the Government of India from 16 February 1976. Under its charter, the IDBI can finance all types of industries, irrespective of the form of organisations or size of the unit. Also, there are no restrictions on the nature and type of security and quantum of assistance, which it can provide.

As an apex financial institution, the IDBI has been assigned a special role for planning, promoting and developing industries to fill vital gaps in the industrial structure; providing technical and administrative assistance for promotion, management and expansion of industry; and undertaking market and investment research and surveys as also techno-economic studies in connection with development

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of industry. Besides, its head office at Bombay, it has regional offices at Ahmadabad, Calcutta, Madras and New Delhi and 11 branch offices in various states.

The IDBI is operating various schemes of assistance; project finance scheme (loans, under-writing, direct subscription and guarantees) for setting up new units as well for expansion, diversification and modernisation of existing units; soft loan scheme for selected industries; technical development fund scheme; refinance of industrial loan scheme; bills rediscounting scheme and seed capital assistance scheme.

The authorised capital of IDBI is Rs 500 crore and the paid up capital is Rs 255 crore as on 30 June 1983. Total sanctions (including guarantee) since the inception of Bank in July 1964 up to end of September 1982 aggregated Rs 8,619 crore in respect of 2,76,027 applications. Total disbursement of assistance amounted to Rs 6,054.2 crore against which assistance of Rs 4,158 crore was outstanding as at the end of September 1982.

Industrial Credit and Investment Corporation

The Industrial Credit and Investment Corporation of India (ICICI) was set up in 1955. Since its inception and up to 31 December 1982 financial assistance of Rs 2,196.01 crore was sanctioned and Rs 1,593.94 crore was disbursed by the Corporation.

Industrial Reconstruction Corporation of India

The Industrial Reconstruction Corporation of India (IRCI) which was set up in 1971, is concerned with the revival and rehabilitation of industrial units which have closed down or are facing closure but show promise of viability by reconstruction of share capital, strengthening of management, provision of finance on soft terms, improvement in technology and labour relation. Up to 30 June 1982, IRCI had sanctioned financial assistance of Rs 162.47 crore to 156 units.

Reserve Bank

The Reserve Bank of India was established under the Reserve Bank of India Act, 1934 on 1 April 1935 and nationalised on 1 January 1949. The main objectives are regulating issue of bank notes, keeping the foreign exchange reserves of the country, operating the currency and credit system of the country with a view to securing monetary stability in India, and developing the financial structure of the country on sound lines consistent with the national social-economic-objectives and polices.

The Bank is the sole authority for the issue of currency in India other than one-rupee coins/notes and subsidiary coins. As the agent of the Central Government, the Reserve Bank undertakes the distribution of one-rupee notes and coins, as well as small coins issued by the Government of India. The Bank acts as banker to the Central Government, state governments, commercial banks, state co-operative banks and to some of the financial institutions. It formulates and administers monetary policy with a view to promoting stability of prices while encouraging higher production. The Reserve Bank also plays an important role in the maintenance of the exchange value of the rupee, and acts as an agent of the Government in respect of India's membership of the International Monetary Fund. The Bank now performs a variety of developmental and promotional functions.

Most of the policy decisions are normally taken in the Central Office. There are 14 full-fledged offices of the Bank headed by managers and at 8 centres there are regional offices of one or more departments.

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General superintendence and direction of the affairs of the Bank vest with the Central Board of Directors. The Central Board consists of 14 Directors, besides the Governor and four Deputy Governors. Governor is the Chairman of the Central Board and Chief executive authority of the Bank. Regular current business of the Bank is attended to by the Committee of the Central Board which meets once a week. There are local boards at Bombay, Calcutta, Madras and New Delhi to advise the Central Board on matters referred to them. The Governor as Chairman of the Central Board of Directors is responsible for internal administration. He is assisted by Deputy Governors and Executive Directors under whose guidance the various departments of the Bank work.

Coordination among Banks and Administrative Agencies

With the increasing role being assigned to the banks to lend active credit support to the programmes of economic development of backward classes and weaker sections, coordination among the banks and between the banks and developmental agencies has become quite critical. To achieve this, different forums have been created at district, state and regional levels. At the district level, there are consultative committees with Collectors as their Chairman and the Lead Banks' officers as their conveners. At the state level, there are two forums *viz.*, state level bankers' committees and state level coordination committees. While the former comprise bank officers at middle-management level, the latter also include heads of departments of the state governments. At the apex level are six regional consultative committees having representations at ministers' level.

Branches of Indian Banks Abroad

One hundred and thirty-six branches (including 7 offshore and 5 mobile agencies) of 12 Indian commercial banks were operating in foreign countries as on 31 March 1983, the largest concentration being in the UK, USA, Fiji, Kenya, United Arab Emirates, Hong Kong, Mauritius and Singapore. These banks mainly cater to the demands of trade and commerce between India and these countries as also meet the banking needs of the sizeable population of Indian origin there.

CORPORATE SECTOR

The number of joint stock companies—both government and non-government, incorporated under the Companies Act, 1956 and at work in India as on 31 March 1982 was 73,404. Of these, 71,689 companies were limited by shares, 219 were companies with unlimited liability and 1,496 were limited by guarantee and were associations not for profit. 71,689 companies limited by shares had a paid-up capital of Rs 16,962.1 crore comprising 9,902 public limited and 61,787 private limited companies with a paid-up capital of Rs 4,288.6 crore and Rs 12,673.5 crore respectively.

Table 12.8 shows the number and paid-up capital of companies (government and non-government taken together) functioning in 1951, 1961, 1971 and 1974 onwards and up to 31 March 1982.

The companies registered during 1981-82 were 10,083. Of these 10,019 were companies limited by shares, 43 were companies with unlimited liability and 21 were companies limited by guarantee and

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associations not for profit. Of the companies limited by shares 861 were public limited and 9,158 were private limited having an authorised capital of Rs 351.7 crore and Rs 2,800.7 crore respectively.

TABLE 12·8 COMPANIES AT WORK

As on 31 March	Companies limited by shares						Companies with unlimited liability (number)	Companies limited by guarantee and association not for profit (number)
	Public		Private		Total			
	Number	Paid-up Capital (Rs crore)	Number	Paid-up Capital (Rs crore)	Number	Paid-up Capital (Rs crore)		
1951	12.568	566·5	15,964	208·9	28,532	775.4	—	1,213
1961	6.702	948·2	19,447	870·3	26.149	1,818·5	—	1,169
1971	6.690	2,091·5	23,632	2,422·2	30,322	4,513·7	—	1,220
1974	7,218	2,572·4	30,267	5,058·6	37,485	7,631·0	1	1,294
1975	7,485	2,799·8	33,099	5,401·0	40,584	8,200·8	4	1,326
1976[1]	7,708	3,004·6	35,557	6,437·0	43,265	9,441·6	15	1,337
1977[1]	7,858	3,146·3	37,774	7,401·9	45,632	10,548·2	43	1,356
1978[1]	8,025	3,374·9	39,930	8,649·4	47,955	12,024·3	47	1,381
1979[1]	8,214	3,540·7	42,837	8,337·4	51,051	11,878·1	62	1,414
1980[1]	8,578	3,725·1	47,202	9,686·5	55,780	13,411·6	78	1,447
1981[1]	9,101	3,952·1	52,900	10,724·4	62,001	14,676·5	176	1,478
1982[1]	9,902	4,288·6	61,787	12,673·5	71,689	16,962·1	219	1,496

1. Provisional

Capital Issues and Project Costs

During 1981-82, 244 non-government non-financial public limited companies issued capital through prospectuses amounting to Rs 421.63 crore. Of this, Rs 193.22 crore were issued in the form of equity shares, Rs 2.43 crore as preference shares and Rs 225.98 crore as debentures. As compared to this 121 companies had issued capital amounting to Rs 98.38 crore—Rs 51.51 crore, in the form of equity shares, Rs 1.78 crore as preference shares and Rs 45.09 crore as debentures during 1980-81. There was thus, an increase in the amount of capital issued to the tune of Rs 323.25 crore during 1981-82. Out of the total capital issued during 1981-82, Rs 301.98 crore (71.6 per cent) was offered to the public, of which Rs 261.38 crore (86.5 per cent) was underwritten. The total project cost of these companies issuing capital during 1981-82 was estimated to be about Rs 1,457.19 crore as compared to Rs 393.67 crore in the preceding year.

Companies ceased to work

The number of companies which went into liquidation or otherwise became defunct or ceased work and were struck off under Section 560(5) of the Companies Act, 1956 during 1981-82 was 330. Comparative figures for earlier years were : 1965-66 (915), 1969-70 (523), 1970-71 (472), 1971-72 (373), 1972-73 (550), 1973-74 (315), 1974-75 (272), 1975-76 (302), 1976-77 (278), 1977-78 (344), 1978-79 (383), 1979-80 (257) and 1980-81 (391).

Government Companies

Table 12.9 gives the number and paid-up capital of Government companies at work in 1957, 1962, 1965 and 1972 onwards and up to

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31 March 1982.

TABLE 12·9 GOVERNMENT COMPANIES AT WORK

As on 31 March	Public		Private		Total	
	No.	Paid-up capital (Rs crore)	No.	Paid-up capital (Rs crore)	No.	Paid-up capital (Rs crore)
1957 . .	39	18·9	35	53·7	74	72·6
1962 . .	41	23·5	113	606·2	154	629·7
1965 . .	54	51·5	129	1,062·8	183	1,114·3
1972 . .	107	156·0	245	2,213·1	352	2,369·1
1973 . .	126	219·0	264	2,779·4	390	2,998·4
1974 . .	147	249·1	303	4,396·0	450	4,645·1
1975 . .	210	315·4	363	4,650·6	573	4,966·0
1976 . .	243	468·5	408	5,653·7	651	6,122·2
1977 . .	273	591·9	428	6,582·6	701	7,174·5
1978 . .	300	725·5	445	7,802·1	745	8,527·6
1979 . .	321	852·7	461	7,462·5	782	8,315·2
1980 . .	353	973·6	472	8,779·7	825	9,753·3
1981 . .	352	1,095·9	499	9,757·2	851	10,853·1
1982 . .	372	1,266·1	522	11,613·0	894	12,879·2

Foreign Companies

On 31 March 1982 there were 311 foreign companies in India as defined under Section 591 of the Companies Act, 1956 (*i.e.* joint stocks companies incorporated abroad but having a place of business in India). The distribution of these companies according to their country of origin, as on 31 March 1982 was UK 129; USA 62; Japan 19; France 10; West Germany and Italy 7 each; Canada 6; Bangladesh, Pakistan, Switzerland, Hongkong and Sweden 5 each; Netherlands and Australia 4 each; Belgium, Yugoslavia, Uganda, Nepal, Thailand 3 each; Singapore, Bahama Islands, Lebanon, United Arab Emirates 2 each; Panama, Kuwait, Liberia, Luxembourg, Tanzania, Iran, Aden, Greece, Malayasia, Mauritius, Austria, Denmark, Sri Lanka, Ethiopia and South Korea 1 each.

INSURANCE

Insurance industry in India has a long history going back for over a hundred years. The growth of the industry was particularly marked after the First World War and when, in 1947, India attained Independence, there were well over 300 Indian and non-Indian insurers and provident societies in the field.

Independence marked the beginning of a new era of growth of insurance business in India but the main watersheds were the nationalisation of life insurance business on 1 September 1956, and the nationalisation of general insurance business on 1 January 1973. The major objective of nationalisation was achievement of wider spread of business, more particularly in the rural areas, so that the benefits of insurance should become available to an increasing number of persons and to all sectors of the economy. For this purpose, increasing emphasis has been laid on strengthening the field organisation and introduction of new insurance schemes to meet the special needs of different sections of the community. A conscious policy for establishment of branch offices in the rural and mofussil areas has been adopted, so that insurance services become available as near

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to the door steps of the assured as possible. Various steps taken in this connection have borne fruit and further efforts in the same direction are continuing.

LIFE INSURANCE

During 1947, the new life insurance business of all insurers was Rs 126 crore and the business in force at the end of the year was Rs 649 crore, and these figures almost doubled by the end of 1955. The tremendous progress made since nationalisation of life assurance business is reflected in the fact that during the year ended 31 March 1982, the Life Insurance Corporation of India wrote new individual assurance business of Rs 3,493 crore apart from new business of Rs 6,705 crore under group insurance schemes, and the individual assurance business in force on 31 March 1982, consisted of about 237 lakh policies assuring Rs 24,133 crore. During the year ended 31 March 1983, the Corporation wrote new business under individual assurance of Rs 4,030 crore and group schemes business of Rs 7,518 crore. The individual assurance business in force at the end of the year is expected to be around 245 lakh policies assuring well over Rs 25,000 crore.

During the year ended 31 March 1982, the total income of the Corporation amounted to Rs 1,676 crore including premium income of Rs 1,093 crore. The life fund at the end of the year stood at Rs 7,563 crore.

Branch Expansion

While opening new branch offices, particular attention is being paid to the needs of mofussil and rural areas. Even among these areas, priority is being given to districts which did not have any earlier branch offices. During 1982-83, the LIC sanctioned 53 new branch offices, out of which 15 branch offices were in districts which did not have any branch offices earlier. The number of branch offices went up from 889 on 31 March 1982, to 942 on 31 March 1983.

Investments

The statutory framework for the Corporation's investment provides that out of the annual accretion to the LIC's funds, 75 per cent should be invested in the socially oriented sector (including 50 per cent in Central and state government securities and government guaranteed marketable securities). Of the balance of 25 per cent of the annual accretion, 10 per cent is earmarked for investments of different types in the private sector, the rest being utilised for loans to policyholders, construction and acquisition of immovable property and funds in pipeline.

The total investments of the LIC in India on 31 March 1982, were Rs 6,894 crore, of which Rs 5,410 crore were in the public sector, Rs 753 crore in the cooperative sector and Rs 731 crore in the private sector, including joint sector. The investments in India went up to Rs 7,834 crore on 31 March 1983.

GENERAL INSURANCE

The nationalised general insurance industry consists of the General Insurance Corporation of India (GIC), which is a holding company, with essentially a supervisory and advisory role, and four subsidiaries, namely, National Insurance Company Ltd., New India Insurance Company Ltd., Oriental Fire and General Insurance Company Ltd. and United India Insurance Company Ltd. These Companies are carrying on all classes of general insurance business in competition with each other.

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The industry is paying special attention to providing necessary infrastructure for underdeveloped and undeveloped areas. The insurance companies have worked out a phase programme for establishment of branch offices in districts which do not have any branch office of any general insurance company at present. Meanwhile, steps are being taken to appoint inspectors in the unrepresented districts so as to improve the presence of the insurance companies in these districts.

To provide better insurance facilities to the public, the subsidiary companies increased their offices during 1982. There were 28 regional/area offices, 399 divisional offices and 919 branch offices on 31 December 1981 while there were 31 regional/area offices, 448 divisional offices and 1,068 branch offices on 31 December 1982. Besides, the companies are transacting business in 28 foreign countries through their branches/agencies.

Business

The progress of general insurance business since Independence, and more particularly after nationalisation at the beginning of 1973, has been no less remarkable than that of life insurance. In 1947, the net premium income of the Indian insurers (in India and abroad) and of non-Indian insurers (in India) was just about Rs 14 crore. In 1972, the net premium income of Indian insurers alone was Rs 160 crore and there was more than four-fold increase in the income during the decade which followed, the net premium income of the General Insurance Corporation of India and its subsidiaries during 1982 being Rs 727 crore.

New Schemes

During 1982, a new Group *Gramin* Accident Scheme for small farmers and landless labourers, etc., was introduced in Karnataka. The scheme which was devised in collaboration with the state government covers nearly 42 lakh persons in the age group 16-65 with annual income of Rs 6,000 or under. Other new schemes of insurance introduced in the interest of rural and weaker sections include those for insurance of ducks, fish, honeybees and silkworms.

During 1982, cattle insurance cover was provided for 80 lakh heads of cattle as against 57 lakh during 1981.

Investments

In terms of the guidelines issued to the GIC and its subsidiaries, the fresh annual accruals to the investible funds are invested in the following manner, namely, 25 per cent in Union Government securities, 10 per cent in state government securities and other approved bonds and debentures issued by various public undertakings, 35 per cent as loans to state governments for housing and fire services and to Housing and Urban Development Corporation Ltd. (HUDCO), and the remaining 30 per cent in market investments. On 31 December 1982, the total investments of the industry in India were Rs 1,298 crore as against Rs 1,055 crore on 31 December 1981.

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13 PLANNING

Planning in India derives its objectives and social premises from the Directive Principles of State Policy set forth in the Constitution. The public and private sectors of the economy are viewed as complementary. The private sector covers not only organised industry but also small-scale industries, agriculture, trade and a great deal of activity in housing and construction and other fields. Individual effort and private initiative are considered both necessary and desirable, the policy being to assist development on the basis of voluntary cooperation to the utmost extent. Economic planning also envisages a growing public sector with massive investments in basic and heavy industries.

The Government of India appointed a Planning Commission in 1950 to prepare a blueprint of development, taking an overall view of the needs and resources of the country. The composition of the Commission as on 1 April 1983 was as follows :

Smt. Indira Gandhi: Prime Minister and Chairman
S. B. Chavan: Minister of Planning and Deputy Chairman
Pranab Kumar Mukherjee: Minister of Finance and Member
R. Venkataraman: Minister of Defence and Member
Mohammad Fazal: Member
Prof. M. G. K. Menon : Member
Dr. C. H. Hanumantha Rao: Member
Prof. A. M. Khusro: Member
K. V. Ramanathan: Secretary

First Plan

The First Five Year Plan (1951-52 to 1955-56) had a two-fold objective to correct the disequilibrium in the economy caused by the Second World War and partition of the country and to initiate simultaneously a process of all-round balanced development, which would ensure a rising national income and a steady improvement in the living standards over a period of time. Since the country had to import foodgrains on a large scale in 1951 and there were inflationary pressures in the economy, the Plan accorded the highest priority to agriculture,

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including irrigation and power projects. About 44.6 per cent of the total outlay of Rs 2,069 crore in the public sector (later raised to Rs 2,378 crore) was allotted for its development. The Plan also aimed at increasing the rate of investment from 5 per cent to about 7 per cent of the national income.

Second Plan

In 1954, the Parliament declared that the broad objective of economic policy should be to achieve a 'socialistic pattern of society' under which the basic criteria for determining the lines of advance would be social gain and greater equality in income and wealth and not private profit. The Second Five Year Plan (1956-57 to 1960-61), therefore, sought to promote a pattern of development which would ultimately lead to the establishment of a socialistic pattern of society in India. In particular, it stressed that the benefits of economic development should accrue more to the relatively less privileged sections of society and there should be a progressive reduction in the concentration of incomes, wealth and economic power.

The main aims of the Second Plan were : (i) an increase of 25 per cent in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) large expansion of employment opportunities; and (iv) reduction of inequalities in income and wealth and a more even distribution of economic power. The Plan also aimed at increasing the rate of investment from about 7 per cent of the national income to 11 per cent by 1960-61. The Plan laid special stress on industrialisation—increased production of iron and steel, heavy chemicals including nitrogenous fertilizers and development of heavy engineering and machine-building industry

Third Plan

The Third Five Year Plan (1961-62 to 1965-66) aimed at securing a marked advance towards self-sustaining growth. Its immediate objectives were to: (i) secure an increase in the national income of over 5 per cent per annum, and at the same time ensure a pattern of investment which could sustain this rate of growth during subsequent plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and to establish machine-building capacity, so that the requirements of further industrialisation could be met within a period of ten years or so mainly from the country's own resources; (iv) utilise fully the manpower resources of the country and ensure a substantial expansion in employment opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power. The Plan aimed at increasing the national income by about 30 per cent from Rs 14,500 crore in 1960-61 to about Rs 19,000 crore by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent from Rs 330 to Rs 385 during the same period.

Three Annual Plans

The situation created by the Indo-Pakistan conflict in 1965, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for Plan purposes delayed finalisation of the Fourth Five Year Plan. Instead, between 1966 and 1969, three Annual Plans were formulated within the framework of the Draft Outline of the Fourth Plan. They took into account the conditions prevailing at that time. The state of the economy and the

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non-availability of financial resources for Plan purposes kept down the size of development outlay during this period.

Fourth Plan

The Fourth Five Year Plan (1969-70 to 1973-74) aimed at accelerating the tempo of development in conditions of stability and at reducing fluctuations in agricultural production as well as the impact of uncertainties of foreign aid. It aimed at raising the standard of living of the people through programmes which at the same time were designed to promote equality and social justice. The Plan laid particular emphasis on improving the condition of the less privileged and weaker sections of the society especially through the provision of employment and education. Efforts were also directed towards reduction of concentration and a wider diffusion of wealth, income and economic power.

The Plan aimed at increasing the net domestic product at 1968-69 factor cost from Rs 29,071 crore in 1969-70 to Rs 38,306 crore in 1973-74. In terms of 1960-61 prices, this implied an increase from Rs 17,351 crore in 1968-69 to Rs 22,862 crore in 1973-74. The average annual compound rate of growth envisaged was 5.7 per cent.

Fifth Plan

The Fifth Five Year Plan (1974-75 to 1977-78) was formulated at a time when the economy was facing severe inflationary pressures. The major objectives of the Plan were to achieve self-reliance and to adopt measures for raising the consumption standards of the people living below the poverty line. The Plan also gave high priority to bringing inflation under control and to achieve stability in the economic situation. The Plan targeted an annual growth rate of 5.5 per cent in national income. Four Annual Plans pertaining to the Fifth Plan period were completed. It was subsequently decided to end the Fifth Plan with the close of the Annual Plan 1977-78 and to initiate work for a new plan for the next five years with new priorities and programmes.

Sixth Plan

The Sixth Five Year Plan (1980-81 to 1984-85) has been formulated after taking into account the achievements and shortcomings of the past three decades of planning. Removal of poverty is the foremost objective of the Plan even though it is recognised that the task of this magnitude cannot be accomplished in a short period of five years.

The strategy adopted for this Plan consists essentially in moving simultaneously towards strengthening the infrastructure for both agriculture and industry so as to create conditions for an accelerated growth in investments, output and exports and provide through special programmes designed for the purpose, increased opportunities for employment especially in the rural areas and the unorganised sector and meet the minimum basic needs of the people. Stress is laid on dealing with inter-related problems, through a systems approach rather than in separate compartments; on greater management-efficiency and intensive monitoring in all sectors and active involvement of the people in formulating specific schemes of development at the local level and securing their speedy and effective implementation.

The Sixth Plan envisages a total public sector plan outlay of Rs 97.500 crore. It aims at a growth rate of 5.2 per cent per annum in gross domestic product and 3.3 per cent per annum in per capita income.

Outlay and Investment in Plans

The public sector outlay as planned in the First, Second and Third Plans was Rs 2,378 crore, Rs 4,600 crore and Rs 7,500 crore

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while the actual expenditure was Rs 1,960 crore, Rs 4,672 crore and Rs 8,577 crore, respectively. The investment by the private sector in the First, Second and Third Plans was Rs 1,800 crore, Rs 3,100 crore and Rs 4,190 crore, respectively. The total public sector outlay during the three Annual Plans was Rs 6,665 crore. The Fourth Plan outlay envisaged originally was Rs 24,822 crore, consisting of the public sector outlay of Rs 15,902 crore. The actual public sector expenditure during the Fourth Plan was estimated at Rs 15,779 crore. The Fifth Plan envisaged public sector outlay of Rs 39,322 crore and the expected private investment was Rs 27,049 crore. The actual expenditure of the public sector during the Fifth Plan was Rs 39,426 crore. With reordering of investment priorities, the Plan for 1979-80 envisaged a public sector outlay of Rs 12,601 crore against which the actual expenditure was Rs 12,176 crore. The 1980-81 Plan outlay was fixed at Rs 15,109 crore against which the actual expenditure is estimated at Rs 15,023 crore. The Annual Plan for 1981-82 has a public sector outlay of Rs 17,417 crore against which, the actual expenditure is estimated at Rs 18,373 crore. For 1982-83, public sector plan outlay of Rs 20,934 crore has been fixed.

The progress of the Plan expenditure in the public sector from Fifth Five Year Plan onwards has been shown in the table 13.1.

Achievements

During the First Plan, owing largely to increase in agricultural production, the national income went up by 18 per cent as against the target of 12 per cent. The increase in the Second Plan was 20 per cent as against the target of 25 per cent. In the Third Plan, national income (revised series) at 1960-61 prices rose by 20 per cent in the first four years but declined by 5.7 per cent in the last year. During the three Annual Plans (1966-67 to 1968-69) there was modest increase in the national income. In the initial years of the Fourth Plan, the growth rate in national income and per capita income was quite satisfactory. In the latter part of the Plan, there was slackening in the growth rate. As against the projected overall rate of 5.7 per cent per annum during the Fourth Plan, the realised rate of growth is estimated at 3.3 per cent during 1969-74. The growth rate in national income achieved during the Fifth Plan is estimated at 5.2 per cent as against the target of 4.4 per cent. The growth rate in national income at 1970-71 prices was 8.1 per cent in 1980-81 and 5 per cent in 1981-82.

The index of agricultural production with triennium ending 1969-70 as base rose from 71.9 at the end of First Plan to 86.7 at the end of Second Plan. During the Third Plan, performance of agriculture was not quite satisfactory. Widespread droughts in 1965-67 slowed down the rate of growth and led to increased imports of foodgrains and other items. The index of agricultural production receded to 80.8 in 1965-66 and 80.7 in 1966-67. Subsequent years, however, recorded substantial improvements, and the index number reached 98.9 in 1967-68, further increasing steadily to 112.4 in 1973-74. The next year, 1974-75, was again a bad one for agriculture when the index declined to 108.8. This was followed by considerable improvement in 1975-76 when the index reached 124.8. In 1976-77, the index registered a decline of 8.4 points and stood at 116.4 but again shot up to 132.7 in 1977-78 and 137.8 in 1978-79. The year 1979-80, again a bad year due to drought and flood in many states, witnessed a fall by 20.77 points and the index number of agricultural production stood at 117.1. The index stood at 134.9 in 1980-81. Agricultural production increased by

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TABLE 13·1

PROGRESS OF PLAN EXPENDITURE—CENTRE, STATES AND UNION TERRITORIES

(Rupees in crore)

Sl. No.	Head of Development	Fifth Five Year Plan 1974—79	1979-80	1980-85	1980-81	1981-82	1982-83		1983-84
		Actuals	Actuals	Outlay	Actuals	Actuals	Approved Plan Outlay	Revised Plan Outlay	Plan Outlay
1.	Agriculture and Allied Programmes	4,864·86	1,996·50	13,274·72	2,362·60	2,544·20	2,803·47[5]	2,877·32	3,178·48
2.	Irrigation and Flood Control	3,876·46	1,287·90	9,493·46	1,377·00	1,541·57	1,738·58	1,670·29	1,907·13
3.	Power	7 399·48	2,240·53	19,265·44	2,656·84	3,182·24	3,862·29	3,821·38	4,532·19
4.	Village and Small Industries	592·45	255·69	1,780·45	273·16	322·91	333·12	324·51	411·18
5.	Industry and Minerals	8,988·60	2,383·47	20,407·12	3,088·20	4,323·73	5,501·80	5,592·82	6,842·50
6.	Transport and Communication	6,870·36	2,044·86	15,484·22	2,509·49	3,145·34	3,127·22	3,321·08	3,720·10
7.	Education	1,324·24	262·96	2,523·74	339·54	435·64	514·08	537·55	686·44
8.	Science and Technology	386·02	91·35	915·20	101·66[1]	162·17[1]	205·16[4]	233·19	261·21
9.	Health	760·75	223·14	1,821·05	269·60	346·53	388·83	388·24	468·02
10.	Family Welfare	491·81	118·52	1,010·00	141·92	183·90	245·00	294·75	330·00
11.	Water Supply and Sanitation	1,091·66	387·59	3,922·02	517·48	640·21	692·59	694·78	903·89
12.	Housing and Urban Development	1,150·09	368·83	2,370·32	454·46	478·74	511·66	534·91	677·87
13.	Welfare of Backward Classes[2]	332·99	90·93	1,560·30	233·25	272·12	318·49	319·83	357·99
14.	Social Welfare	88·20	30·73	271·97	38·11	52·54	66·42	72·52	91·39
15.	Nutrition	89·95	27·44	238·14	29·82	36·18	43·88	70·69	145·06
16.	Labour and Labour Welfare[3]	672·89	209·09	1,791·85	106·54	145·02	127·81	145·34	138·89
17.	Hill and Tribal Areas	358·18	125·00	1,030·00	136·00	173·95	207·00	207·00	245·00
18.	North Eastern Council	87·27	32·00	340·00	50·89[6]	64·35[6]	80·00	90·86[6]	95·00
19.	Others				145·88 + 191·00	159·51 + 162·00	166·25	157·31 + 374·23	487·98
	TOTAL	39,426·26	12,176·53	97,500·00	15,023·44	18,372·85	20,933·65	21,728·65	25,480·3[2]

1. Includes expenditure on new and renewable sources of energy which includes bio-gas also.
2. Includes special central additive for scheduled castes component plans.
3. Includes expenditure on special employment programme.
4. Includes Rs 16·80 crore for new and renewable sources of energy.
5. Includes Rs 5 crore for bio-gas.
6. Expenditure on works financed by Central assistance for relief from natural calamities.

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5.5 per cent during 1981-82, and the index stood at 142.6 in 1981-82. During 1982-83, kharif production was adversely affected due to monsoon which was inadequate in coverage and uneven in its timing with the result that overall agricultural production during 1982-83 is estimated to be around 12.5-12.8 crore tonnes compared to 13.3 crore tonnes in 1981-82 and 12.96 crore tonnes in 1980-81.

Net irrigated area increased from 2.08 crore hectares in 1950-51 to 2.27 crore hectares at the end of the First Plan, 2.46 crore hectares at the end of the Second Plan, 2.63 crore hectares at the end of the Third Plan and 2.90 crore hectares in 1968-69. By the end of the Fourth Plan, the net irrigated area was 3.25 crore hectares and by 1978-79 the figure is estimated at 3.66 crore hectares. The gross area under irrigation increased from 5.42 crore hectares in 1980-81 to 5.62 crore hectares in 1981-82.

Power development during the last three decades has been significant. Successive plans with large outlay on power development have added substantial generating capacity and a basic transmission and distribution system has been developed. The power systems have developed from the rudimentary stage of isolated generating stations to the stage of fairly well integrated systems in most of the states and emergence of regional and inter-regional grids. The total installed generating capacity which was only 2,300 mw in 1950 increased to over 31,184 mw by the end of March 1980 and in addition about 1,823 mw was commissioned during 1980-81. The additional capacity in 1981-82 was 2,175 mw. Under rural electrification programme, a total of 2.94 lakh villages had been electrified out of a total of 5.76 lakh villages by the end of March 1982. The number of irrigation pump sets in operation by March 1981 was 43.30 lakh and by March 1982, another 3.2 lakh pump sets were added in the country. Extension of power to tribal areas, hilly areas and electrification of *bastees* for scheduled castes and scheduled tribes is being accorded increasing priority.

Large investments in the industrial and mineral sectors, particularly from the beginning of the Second Plan, have brought about a significant transformation in the industrial scene. There was a rapid and almost continuous growth in industrial production during the first three Plan periods. Industrial production which increased at an average rate of 7 per cent in the first decade of planning (1950-51 to 1960-61) recorded an increase of around 9 per cent per annum during the next four years i.e. 1961-62 to 1964-65. The performance since then, however, has been uneven and substantially below the earlier achievements and projected expectations. The growth declined to 5.3 per cent in 1965-66, was almost stagnant in the subsequent two years, witnessed a spurt to 7.4 per cent in 1969-70 and hovered around 3 to 4 per cent over the next five years. A significant improvement took place in 1976-77 when the index of industrial production showed a growth rate of around 9.5 per cent. However, on the whole, the average annual growth. At the end of 1976-77, the number of educational institutions and about 6 per cent during 1974-75 to 1978-79. In 1979-80, there was a decline in industrial growth to the extent of 1.4 per cent. There was, however, recovery in 1980-81 when the index recorded an increase of 4 per cent. In 1981-82 industrial production increased by 8.6 per cent.

The educational system has recorded, over the years, a phenomenal growth. At the end of 1976-77, the number of educational institutions increased to 6.51 lakh from 2.31 lakh in 1950-51, the corresponding

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increase in enrolment was from 2.73 crore to 9.97 crore. Enrolment at the elementary stage (Class I to VIII) in 1979-80 was 10.85 crore. The gross enrolment rate in Class I-V and VI-VIII in 1978-79 was 83.6 and 40.2 respectively. In the Sixth Plan, it is proposed to enrol additional 1.17 crore children in Class I-V and 63 lakh in Class VI-VIII. The enrolment in Class I-V and VI-VIII in 1984-85 is expected to be 8.37 crore and 2.58 crore respectively, which would be 95 per cent and 50 per cent of the population in the corresponding age groups. In addition to the enrolment in full time formal schools, about 80 lakh children at the elementary stage would be enrolled in non-formal/part time classes during the Sixth Plan.

REVISED TWENTY POINT PROGRAMME

The earlier 20-Point Programme was announced by the Prime Minister on 1 July 1975. Considerable progress was made in implementing this programme in 1975-76 and 1976-77. The programme was re-emphasised and revitalised since January 1980 and this reflected in the programmes and policies incorporated in the Annual Plans. It has also been one of the principal guiding factors in the formulation of the Sixth Plan.

Many of the objectives of the earlier programme have been accomplished. In view of the fulfilment of several targets, economic and social developments that have taken place since 1975 and the objectives, strategy and development programmes included in the Sixth Plan, the earlier 20-Point Programme has been redefined and recast.

The Revised 20-Point Programme announced by the Prime Minister on 14 January 1982 is to :

1. Increase irrigation potential, develop and disseminate technologies and inputs for dry land agriculture.
2. Make special efforts to increase production of pulses and vegetable oil-seeds.
3. Strengthen and expand coverage of integrated rural development and national rural employment programmes.
4. Implement agricultural land ceilings, distribute surplus land and complete compilation of land records by removing all administrative and legal obstacles.
5. Review and effectively enforce minimum wages for agricultural labour.
6. Rehabilitate bonded labour.
7. Accelerate programmes for the development of scheduled castes and tribes.
8. Supply drinking water to all problem villages.
9. Allot house sites to rural families who are without them and expand programmes for construction assistance to them.
10. Improve the environment of slums, implement programmes of house building for economically weaker sections and take measures to arrest unwarranted increase in land prices.
11. Maximise power generation, improve the functioning of electricity authorities and electrify all villages.
12. Pursue vigorously programmes of afforestation, social and farm forestry and the development of bio-gas and other alternative energy sources.
13. Promote family planning on a voluntary basis as a people's movement.

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14. Substantially augment universal primary health care facilities and control of leprosy, TB and blindness.
15. Accelerate programmes of welfare for women and children and nutrition programmes for pregnant women, nursing mothers and children, specially in tribal, hill and backward areas.
16. Spread universal elementary education for the age-group 6-14 with special emphasis on girls, and simultaneously involve students and voluntary agencies in programmes for the removal of adult illiteracy.
17. Expand the public distribution system through more fair price shops, including mobile shops in far-flung areas and shops to cater to industrial workers, students' hostels and make available to students text-books and exercise books on a priority basis and to promote a strong consumer protection movement.
18. Liberalise investment procedures and streamline industrial policies to ensure timely completion of projects. Give handicrafts, handlooms, small and village industries all facilities to grow and to up-date their technology.
19. Continue strict action against smugglers, hoarders and tax evaders and check black money.
20. Improve the working of the public enterprises by increasing efficiency, capacity utilisation and the generation of internal resources.

The programme focusses attention on some of the most important social and economic programmes included in the Sixth Plan and seeks to impart greater dynamism to them. While the thrust of the revised programme continues to be on providing better living conditions for the less privileged sections of the population, it also aims at all-round improvement in productivity.

The Revised 20-Point Programme forms an integral part of the Sixth Plan with emphasis on certain high priority areas of national development effort. The targets of the revised programme are broadly consistent with those of the Sixth Plan. A successful implementation of this programme, as well as of the Sixth Plan itself, would depend crucially on our ability to mobilise financial resources in line with the contemplated investments.

The Revised 20-Point Programme lays particular stress on programmes designed to ameliorate the economic and social conditions of the poorer and less privileged sections of the community. The strengthening and expansion of the coverage of the integrated rural development and national rural employment programmes, implementation of agricultural land ceilings and distribution of surplus land as well as the growth of handicrafts, handlooms, small and village industries, etc., are intended to increase employment, strengthen the resource base of the rural poor and raise their incomes. The review and effective enforcement of minimum wages for agricultural labour would also contribute to increasing the incomes of the poor. In addition, it is proposed to accelerate the development programmes having a bearing on the welfare of scheduled castes and scheduled tribes and bonded labour.

To enlarge the availability of basic amenities and facilities, particularly for the weaker sections, it is proposed to supply drinking water to all problem villages, allot house sites to rural families and expand programmes of construction assistance to them, improve the environment of slums and implement programmes of house building for economically weaker sections, augment universal primary health care facilities

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and control leprosy, TB and blindness, spread universal elementary education, implement programmes for the removal of illiteracy, electrify all villages and accelerate the programmes of welfare for women and children.

At the same time, the Revised 20-Point Programme aims at increasing the overall production and productivity in the economy. In view of the critical importance of irrigation for increasing agricultural production, the programmes lays emphasis on increasing irrigation potential. It also stresses the need for the development and dissemination of technologies and inputs for the improvement of dry land agriculture. Special efforts will be made to increase the production of oilseeds and pulses in view of the continued imbalance between the demand and supply in their case.

As availability of power constitutes an important input for increasing agricultural as well as industrial production, the programme envisages maximisation of power generation. At the same time, it emphasises the need for development of bio-gas and other alternate energy sources. The programmes of afforestation and social and farm forestry will be pursued vigorously. To stimulate production and investment, industrial procedure would be liberalised and industrial policies streamlined. Particular stress has been laid on improving the working of the public enterprises by increasing efficiency, capacity utilisation and the generation of internal resources.

To make available essential commodities at reasonable prices, the programme envisages expansion of the public distribution system through more fair price shops, including mobile shops in far flung areas and shops to cater to the needs of industrial workers and students' hostels. Text books and exercise books will be made available to students on a priority basis. Besides, effects will be made to promote a strong consumer protection movement. Strict action is contemplated against smugglers, hoarders, tax evaders, etc., and for checking the generation of black money. Measures to arrest unwarranted increase in land prices will bring relief to a large number of people.

In view of the urgent need to control the growth of population as brought out by the 1981 Census, the programme lays special emphasis on promoting family planning on a voluntary basis as a people's movement.

The National Development Council (NDC) at its meeting held on 14 March 1982, expressed its determination to implement effectively the Revised 20-Point Programme which contains the core elements of the Sixth Plan. NDC stressed the need for effective monitoring of both the Revised 20-Point Programme and of the Sixth Plan programmes and projects as a whole. It emphasised the important role assigned to the banking system in the implementation of the anti-poverty programmes included in the Revised 20-Point Programme.

Effective implementation and monitoring of the programme are very essential to achieve the objectives. The Central ministries and state governments have been requested to take all possible steps for effective implementation of the programme and to furnish monthly and quarterly progress reports regularly to the Planning Commission.

Review of 1982-83 Programme

Effective implementation of the Revised 20-Point Programme was undertaken under the Annual Plan, 1982-83 of the states, union territories and Central ministries. The targets of the programme are broadly consistent with those of the Sixth Plan and the Annual Plan

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TABLE 13·2

OUTLAYS FOR THE REVISED TWENTY POINT PROGRAMME

(Rupees in crore)

Sl. No.	Item	Sixth Plan	1980-81	1981-82	1982-83	1983-84
1.	Irrigation (major, medium and minor) and dry land agriculture	10,266·68	1,521·71	1,700·76	1,842·90	2,113·38
2.	Production of pulses and oil seeds	82·11	27·53	34·31	48·87	51·01
3.	Integrated rural development and national rural employment	3,486·64	524·31	607·24	630·97	820·00
4.	Land reforms	304·63	44·73	56·66	56·67	63·69
5.	Minimum wages for agricultural labour	2·53	0·32	0·41	0·56	1·75
6.	Rehabilitation of bonded labour	31·68	4·09	7·86	8·22	8·75
7.	Accelerated programme for development of scheduled castes and tribes	1,310·00	208·26	240·00	414·88	467·99
8.	Supply of drinking water to problem villages	2,007·11	306·41	346·16	414·68	518·01
9.	Rural house-site-cum-house construction	353·50	52·83	65·85	72·37	119·68
10.	Environmental improvement of slums	151·45	24·02	25·19	28·68	34·32
11.	Power	19,265·44	2,743·85	3,322·09	3,821·38	4,532·19
12.	Afforestation, social and farm forestry and development of bio-gas	150·00	9·50	20·00	2,660·00	36·50
13.	Family Planning	1,010·00	140·00	155·00	299·75	330·00
14.	Universal primary health care, control of leprosy, TB and blindness	506·72	78·33	97·68	106·87	130·60
15.	Accelerated programme for women and child welfare	220·18	8·89	12·98	92·64	173·71
16.	Elementary education for age-group 6---14 and removal of adult illiteracy	1,033·00	123·00	175·00	199·42	275·62
17.	Public distribution system	4·00	—	—	0·03	0·62
18.	Village and small industries	1,780·45	261·49	315·17	330·57	411·18
	TOTAL :	42,768·10	6,153·57	7,196·30	8,391·06	10,089·99

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TABLE 13·3

PHYSICAL TARGETS

Item	Unit	Prior to Sixth Plan Targets	Sixth Plan Targets	Achievements during			1983-84 Targets
				1980-81	1981-82	1982-83	
Increase in irrigation potential	lakh hectares	566	137·4	24·6	27·4	23·4	23·7
Pulses production	lakh tonnes	128	145	112	114	110	130·3
Oilseeds production	Do.	102	130	94·8	115	110	125
Integrated Rural Development Programme—Families to be benefited	lakh families	20	150	27·7	27·1	39·1	30·5
National Rural Employment Programme—Mandays employment	lakh mandays	98,921	3,000—4000 per year	3,265	2,671	3,378	3,216
Surplus land assumed for allotment	hectares	2,71,600	20,99,200	—	32,000	1,02,000	1,13,600
Bonded labour to be rehabilitated							
Families to be economically assisted	numbers	1,22,000	32,300	5,761	22,314	36,019	28,804
(i) Scheduled castes	lakh	—	—	—	18·00	21·25	25·95
(ii) Scheduled tribes	lakh	—	—	—	8·73	5·20	6·05
Problem villages to be covered	numbers	95,000	2,31,000	—	27,700	54,500/	48,846
House sites to be allotted	lakh families	77	68	—	11·28	10·07	8·74
Construction assistance to be provided	Do.	5·6	139	—	5·41	3·77	5·56
Slum population to be covered	lakh persons	68	310·7	—	14·56	17·17	21·20
Economically weaker sections—Houses to be provided	Do.	—	16·2	—	0·60	1·45	4·20
Rural electrification			3·0 (HUDCO)				
(i) Villages to be electrified	numbers	2,49,799	1,00,000	21,500	24,669	23,572	23,631
(ii) Pump-sets to be energised	Do.	4,00,000	25,00,000	3,60,000	3,26,400	3,02,000	3,68,000
Trees to be planted	crore	—	—	—	132·0	211·7	225·00
Bio-gas plants to be set up	numbers	75,000	4,00,000	—	23,086	57,800	75,000
Sterilisations to be done	lakh	313·7	240	20·5	28·0	39·8	59·0
Primary Health Centres to be established	numbers	5,400	600	58	171	188	405
Sub-centres to be set up	numbers	50,000	40,000	4,376	8,319	7,668	9,010
Integrated Child Development Services—Blocks to be opened	numbers	150	1,000	35	115	320	200
Enrolment in age group 6—14	crore	9·3	7	29·5	0·38	0·41	0·47
Adult literacy	lakh number	900	All people in age (15—35)	—	31·0	40·27	52·60

1· Including 10,376 non-problem villages

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of the states, union territories and Central ministries. During 1982-83 an outlay of Rs 8,427.42 crore had been provided for the implementation of the Revised 20-Point Programme—Rs 2,165.70 crore at the Centre and Rs 6,261.72 crore for states and union territories. The anticipated expenditure during the year is estimated at Rs 8,354.85 crore, Rs 2,369.25 crore for the Centre and Rs 5,985.60 crore for states and union territories.

The continuous and effective monitoring of the Revised 20-Point Programme undertaken during 1982-83 indicates that the performance of states/union territories has improved substantially. Cent per cent or over cent per cent of the targetted progress has been achieved under (i) irrigation, (ii) integrated rural development programme, (iii) rehabilitation of bonded labour, (iv) scheduled caste welfare, (v) rural water supply, (vi) tree plantation and (vii) integrated child development service blocks. Ninety per cent or more has been achieved under (i) scheduled tribes welfare, (ii) national rural employment programme, (iii) house sites, (iv) slum population, (v) village electrification, (vi) sub-centres and (vii) elementary education.

Even though progress in certain sectors has been below expectations, the implementation of the programme as a whole has been very satisfactory. Quality-wise also the results during the year are superior in view of the much greater monitoring of the programme undertaken by the state governments, Planning Commission and the Central ministries. The entire administration, both at the Centre and in the states, has been geared up for achieving results in the field.

The pointwise breakup of financial outlay and physical targets/achievements is given in tables 13.2 and 13.3.

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14 AGRICULTURE

The agricultural sector contributes nearly 40 per cent of the net national product, provides livelihood to 60 per cent of the total working force, and accounts for nearly 35 per cent of the country's exports. It supplies the bulk of wage-goods required by the non-agricultural sector and raw materials for a large section of industry. Transport, marketing, processing and other aspects of agricultural production and utilisation also have a strong bearing on the tertiary sector of the economy.

The country has attained a secular growth rate of 2.59 per cent per annum in agricultural production during 1949-50 to 1981-82. During the same period, foodgrains production has more than doubled from 5.49 crore tonnes to 13.31 crore tonnes. The cropping pattern has diversified and cultivation of commercial crops has received new impetus in line with domestic demand and export requirements. The per capita net availability of foodgrains has reached 454.1 gm per day in 1982 compared to 430.9 gm per day in the mid-'50s. Availability of edible oils has increased from 2.5 kg in 1955-56 to 4.6 kg during 1981-82. In spite of mounting population pressure, we have been able to sustain and improve the availability of consumer articles and thus raise the standard of living of the people.

During 1981-82, a record production of 13.31 crore tonnes of foodgrains had been achieved. Similar achievements have been attained for oilseeds (1.21 crore tonnes), sugarcane (18.36 crore tonnes), cotton (78 lakh bales) and jute and mesta (84 lakh bales). The index of agricultural production for all crops (base-triennium ending 1969-70=100) stood at 142.5 as against 135.1 in 1980-81, thus marking a growth rate of 5.5 per cent. This was significantly higher than the 4 per cent growth rate projected in the Sixth Plan. Area, production and yield of principal crops during 1950-51, 1960-61, 1970-71, 1980-81 and 1981-82 are given in table 14.1.

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TABLE 14·1
AREA, PRODUCTION AND YIELD OF PRINCIPAL CROPS

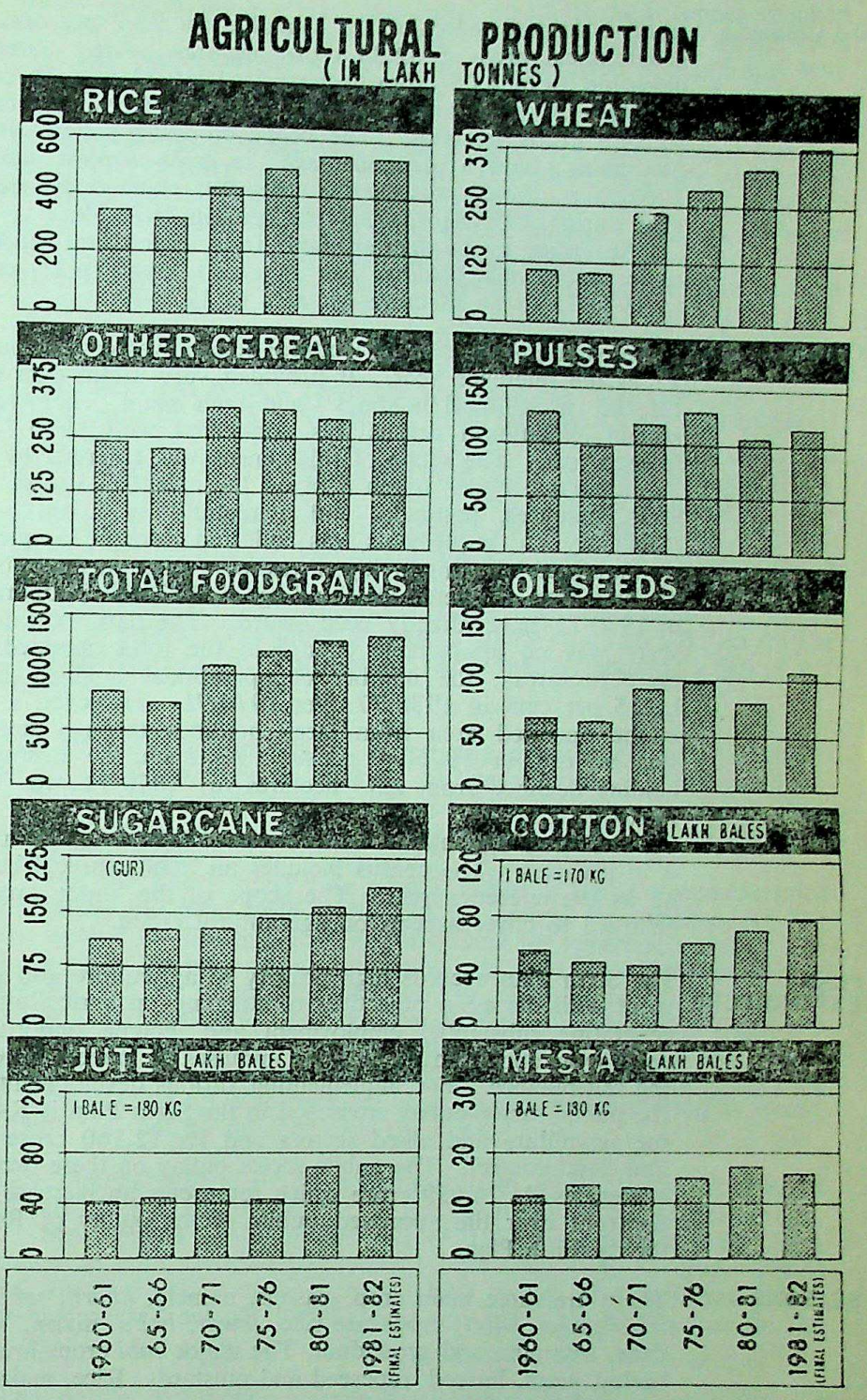
Crops		Years relate to crop years (July-June)				
		1950-51	1960-61	1970-71	1980-81	1981-82
Rice	A	308·10	341·28	375·92	401·52	407·06
	P	205·76	345·74	422·25	536·31	535·93
	Y	0·67	1·01	1·12	1·34	1·32
Wheat	A	97·46	129·27	182·41	222·79	223·08
	P	64·62	109·97	238·32	363·13	378·33
	Y	0·66	0·85	1·31	1·63	1·70
Cereals (coarse)	A	376·74	449·63	459·50	417·80	419·35
	P	153·76	237·43	305·47	290·18	302·84
	Y	0·41	0·53	0·67	0·70	0·72
Gram	A	75·70	92·76	78·39	65·84	78·22
	P	36·51	62·50	51·99	43·28	45·67
	Y	0·48	0·67	0·66	0·66	0·58
Pulses (total)	A	190·91	235·63	225·34	224·57	238·71
	P	84·11	127·04	118·18	106·27	113·51
	Y	0·44	0·54	0·52	0·47	0·48
Foodgrains (total)	A	973·21	1,155·81	1,243·16	1,266·67	1,288·19
	P	508·25	820·18	1,084·22	1,295·89	1,330·61
	Y	0·52	0·71	0·87	1·02	1·03
Groundnut	A	44·94	64·63	73·26	68·01	74·48
	P	34·81	48·12	61·11	50·05	72·39
	Y	0·78	0·75	0·83	0·74	0·97
Rapeseed and Mustard	A	20·71	28·83	33·23	41·13	43·37
	P	7·62	13·47	19·76	23·04[2]	23·63[2]
	Y	0·37	0·47	0·59	0·56	0·54
Five major oilseeds	A	107·27	137·70	164·18	155·57	166·47
	P	51·58	69·82	92·59	83·83[2]	109·02[2]
	Y	0·48	0·51	0·60	0·54	0·66
Sugarcane (cane)	A	17·07	24·15	26·15	26·67	31·92
	P	570·51	1,100·01	1,263·68	1,542·48	1,836·47
	Y	33·42	45·55	48·32	57·84	57·54
Cotton[3]	A	58·82	76·10	76·05	78·23	79·87
	P	30·44	56·04	47·63	70·10	78·26
	Y	0·09	0·13	0·11	0·15	0·17
Jute and Mesta[4]	A	5·71[1]	9·03	10·79	13·00	11.54
	P	33·09[1]	52·63	61·93	81·60	84·00
	Y	1·04	1·05	1·03	1·13	1.31
Tobacco	A	3·57	4·01	4·47	4·52	4·48
	P	2·61	3·07	3·62	4·81	5·25
	Y	0·73	0·77	0·81	1·07	1·17

1. 1950-51 data relate to jute crop only
2. Provisional
3. Lakh bales of 170 kg each
4. Lakh bales of 180 kg each

A—Area in lakh hectares
P—Production in lakh tonnes
Y—Yield in tonne per hectare

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Land Utilization

Land utilisation statistics are available for 92.7 per cent of the total geographical area of 32.88 crore hectares. Area under forests has increased from 4.05 crore hectares in 1950-51 to 6.74 crore hectares in 1978-79. Net area sown has improved from 11.9 crore hectares to 14.3 crore hectares. The broad cropping pattern indicates that foodgrains have a preponderance in gross-cropped area over non foodgrains, though the relative share has come down from 76.7 per cent during 1950-51 to 73.8 per cent in 1978-79.

According to the data available from agricultural census, total area under operational holdings has increased from 16.21 crore hectares in 1970-71 to 16.33 crore hectares in 1976-77.

AGRICULTURAL CENSUS

The first comprehensive agricultural census was carried out with 1970-71 as the reference year. It provided very useful data on the structure of agricultural holdings and their main characteristics. The second agricultural census was conducted with 1976-77 as the reference year. The scope of this census was enlarged by including an 'input survey' under which data on the extent of use of various fertilizers, manures, pesticides and availability of livestock, agricultural machinery and implements was collected through sample enquiries.

Statewise bulletins giving districtwise data on distribution of number and area of operational holdings in 1976-77 compared with those in 1970-71 have already been issued. The data indicated that while there was no appreciable change in the total operated area (16.30 crore hectares), the number of operational holdings had increased by 15 per cent in 1976-77 over 1970-71. However, a positive shift in the operated area from large holdings through smaller holdings was noticed in 1976-77 census. As such, the average size of a holding declined from 2.3 hectares in 1970-71 to 2 hectares in 1976-77.

The third agricultural census with 1980-81 as the reference year is in progress. The census includes an 'input survey' but with 1981-82 as the reference year. The scope of the 'input survey' has been enlarged to cover aspects on agricultural credit.

PLAN EXPENDITURE

The Sixth Plan accords high priority to agriculture and rural development with the main objectives of stepping up agricultural production, generating substantial employment and income opportunities in the rural areas and strengthening the impulses of modernisation for achieving self-reliance. For implementing various development programmes, the public sector outlay envisaged in the Sixth Plan is Rs 12,539 crore for agriculture and allied sectors and Rs 12,160 crore for irrigation and flood control. The public sector outlay on these two sectors, thus, aggregates Rs 24,699 crore which represents an increase of about 186 per cent over the approved public sector outlay of Rs 8,650 crore for the Fifth Plan.

SEASONS

There are three main crop seasons, namely, *kharif, rabi* and summer. The 'major *kharif* crops are rice, *jowar, bajra,* maize, cotton, sugarcane, sesamum and groundnut. The major *rabi* crops are wheat, *jowar,* barley, gram, linseed, rapeseed and mustard. Rice, maize and groundnut are grown in summer season also.

FOOD SITUATION

During 1981-82 foodgrains production touched the record level of 13.30 crore tonnes marking an increase of 35 lakh tonnes or 2.7 per

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cent over the level attained in 1980-81; it was also higher by 12 lakh tonnes than in the previous peak level of 13.19 crore tonnes reached in 1978-79. The production of rabi cereals in 1981-82 would have been still higher but for the untimely rains received in April and May 1982 which caused damage both in terms of quantity and quality.

The increased production contributed substantially towards improving availability of foodgrains in all parts of the country and keeping the prices under reasonable control. The all-India index number of wholesale prices (base 1970-71=100) of cereals which stood at 216.7 in July 1981 rose by 2.4 per cent to 222 in June 1982, as against a rise of 8.9 per cent witnessed during July 1980 to June 1981. The wholesale prices of cereals further marked an increase during June to August 1982, when the index rose by 8 per cent from 222 in June 1982 to 239.8 in August 1982. From August to December 1982, cereal prices ruled more or less steady. However, from January onwards there has been a persistent rise in prices. The index for cereals which stood at 239.5 in December 1982 rose by 8.9 per cent to 260.9 in March 1983. The all-India index number of wholesale prices of pulses declined by 13.7 per cent from 347.7 in July 1981 to 300 in June 1982 as against a rise of 13.3 per cent witnessed during July 1980 to June 1981. During July to August 1982, the wholesale prices of pulses recorded a rise. The all-India index number of wholesale prices of pulses which stood at 300 in June 1982 rose by 7.8 per cent to 323.5 in August 1982. Thereafter, there has been a steady fall in the prices of pulses. The index for pulses which stood at 323.5 in August 1982 declined to 292.1 in March 1983, thereby showing a fall of 9.7 per cent.

Foodgrains Price Policy

For 1982-83 rabi marketing season, the procurement price of wheat of all varieties was raised from Rs 130 per quintal to Rs 142 per quintal. The issue price of wheat released from the central pool for public distribution was increased from Rs 145 to Rs 160 per quintal from 1 August 1982.

For the kharif marketing season 1982-83, the procurement price for paddy has been fixed at Rs 122 per quintal for common, Rs 126 per quintal for fine and Rs 130 per quintal for superfine varieties. The issue prices for both raw and parboiled rice for 1982-83 marketing year are Rs 188 per quintal for common, Rs 200 per quintal for fine and Rs 215 per quintal for superfine varieties from 1 October 1982.

The procurement price for coarse grains, namely, *jowar*, *bajra*, maize and *ragi* for 1982-83 marketing year has been fixed at Rs 118 per quintal and no issue price for coarse grains has been fixed as coarse grains will not be procured for the central pool.

Procurement

Government reiterated its commitment to purchase all foodgrains of fair average quality offered by the producers at the support prices.

Procurement of foodgrains out of 1981-82 crop was 152 lakh tonnes as compared with 123 lakh tonnes from 1980-81 crop. Up to 31 March 1983, a quantity of 63 lakh tonnes of kharif cereals has been procured out of 1982-83 crop as against 64 lakh tonnes on the same date last year.

Public Distribution

The public distribution system functioning through a wide network of ration/fair price shops aims primarily at supplying foodgrains to the consumers particularly to the weaker sections of the population.

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at reasonable prices. The distribution of foodgrains through public distribution system which had reached an all-time record level of 149.9 lakh tonnes during 1980 came down to 130.1 lakh tonnes in 1981, due mainly to easy market availability following the good crop of 1980-81. However, during 1982 in order to contain the pressure on market prices, the public distribution was maintained at the high level of 147.8 lakh tonnes or 13.6 per cent higher than in 1981.

The grain-wise public distribution of foodgrains during 1980 to 1983 (up to February 1983) is given in table 14.2.

TABLE 14·2 DISTRIBUTION OF FOODGRAINS

('000 tonnes)

Year	Rice			Wheat					
	PD	FWP	Total	PD	FWP	Mills	Total	Coarse-grain	Total
1980 .	5,025	1,032	6,057	4,124	1,052	3,643	8,819	117	14,993
1981 .	6,157	245	6,402	3,254	29	3,144	6,427	185	13,014
1982(P) .	7,437	71	7,508	3,887	16	3,273	7,176	97	14,781
1983(P) . (up-to February 1983)	1,195	12	1,207	1,042	37	529	1,608	36	2,851

P—Provisional
PD—Public distribution
FWP—Food for work programme/national rural employment programme.

Buffer Stock

The building up and maintenance of buffer stocks have been important planks of the national food policy. These stocks are maintained primarily to ensure stability in supplies and prices over the year.

On the recommendations of the technical group constituted in 1975, the Government decided in 1978 to build up a buffer stock of 120 lakh tonnes of foodgrains over and above the operational stocks ranging between 35 to 88 lakh tonnes at different dates of the year. In April 1981, another technical group was constituted to examine the feasibility of the buffer stocking policy of foodgrains for the Sixth Plan. The recommendations of the technical group are under consideration with the Government.

Import of Foodgrains

With a view to replenishing buffer stocks as a measure of national food security and to keep a check on prices, a total quantity of 39.50 lakh tonnes of wheat was contracted for import from USA in 1982. A quantity of 5.65 lakh tonnes of US wheat was received in India up to December 1982 against the contracted quantity of 39.50 lakh tonnes of wheat. Apart from this, a quantity of 15.26 lakh tonnes was also received in India during 1982 from USA and Australia against the contracts entered into with them in 1981. No rice was, however, imported during 1982. The details in regard to cereals imported since 1974 is given in table 14.3.

TABLE 14·3 IMPORT OF CEREALS

('000 tonnes)

Cereals	1974	1975	1976	1977	1978	1979	1980	1981	1982
Rice .	—	130	149	8	—	—	—	78[1]	—
Wheat .	4,203	7,016	5,832	547	—	—	48[1]	777	2,091
Other cereals .	671	261	534	—	—	—	—	—	—
Total .	4,874	7,407	6,515	555	—	—	48	855	2,091

1. Received in repayment of wheat/rice loan given to Bangladesh under Indo-Bangladesh Agreement of 4 May 1979.

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Exports of Foodgrains

During 1982, export of wheat continued to be banned. However, a quantity of 1.03 lakh tonnes of wheat was given as commodity loan to Bangladesh under the Indo-Bangladesh Agreement of 4 June 1982.

As regards export of rice during the year, export of *basmati* continued to be on Open General Licence. Export of non-*basmati* rice was made in a very restricted manner to honour the commitments made on Government-to-Government basis as given below :—

TABLE 14·4
EXPORT OF RICE

('000 tonnes)

Quantity Exported	Country	Remarks
1·98	Maldives	
401·54	USSR	
4·01	Nepal	On commodity loan basis
Total 407·53		

Storage

The Food Corporation of India (FCI) and the Central Warehousing Corporation (CWC) provide storage at the centres of all-India importance; the state warehousing corporations (SWC) and the state governments at the centres of state importance and the district level; and the cooperatives at the primary and marketing society level in rural areas. A scheme has also been initiated for establishing a national grid of rural godowns for agricultural produce in the rural areas.

Quality Control

The Storage and Inspection Division is responsible for formulation of uniform specifications for procurement of foodgrains all over the country and also to deal with policy matters in respect of technical aspects for import and export of foodgrains and also to render advice to FCI, state governments and other agencies connected with the storage of foodgrains in respect of preservation and quality aspect. For this purpose, the Central Grain Analysis Laboratory undertakes analysis of the consignment samples of imported as well indigenously procured foodgrains and their products. Three quality control cells have been created, at New Delhi, Calcutta and Hyderabad, to monitor the quality of foodgrains being procured and preserved by FCI, CWC, SWC, state governments, and other connected agencies. These cells also investigate the quality complaints for early redressal.

Save Grain Campaign

Since the post-harvest losses at the farm and community levels are known to be substantial due to faulty and improper methods of storage, the Government is tackling the problem through the Save Grain Campaign. The scheme aims at providing the appropriate technology through education, motivation and persuasion in preventing the losses and improving the farm and community level storage. Simple but effective methods of foodgrains storage and pest control are being popularised. Improved type of metal bins and pesticides are also supplied.

The activities of the Save Grain Campaign are being undertaken by a network of 17 regional teams of technical staff. They are supported by the Indian Grain Storage Institute Hapur, and its field stations at Hyderabad, Ludhiana, Jabalpur, Jorhat and Udaipur, which conduct surveys and applied research on various aspects of grain storage, handling and preservation, designing of storage structures, screening of pesticides and training for apex level personnel.

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Nutrition and Food Processing

The Food and Nutrition Board set up in 1964 in the Department of Food has been concentrating its efforts on the development of nutritious foods and promotion of their production; and dissemination of the knowledge on nutrition through education and extension activities. In the field of processing, the Board is concerned with the development and regulation of fruit and vegetable processing industry and modernisation of rice milling industry.

The production of miltone, a protein isolate tonned milk, based on groundnut, was 33.10 lakh litres during 1982 at Bangalore and Hyderabad. An additional unit for production of miltone was commissioned at Ranchi on 26 January 1983. Production of energy/extruded/weaning foods was also continued. Under the fortification scheme, the entire milk being produced at the Mother Dairy, which is about 5.4 lakh litres a day, is being fortified with Vitamin A to enhance its value The Department had undertaken a project for developing technology for iron fortification of salt, with a view to combating anaemia. A suitable iron formula for production of iron fortified salt was developed and large scale field trials were conducted which were successful. The fleet of 31 Mobile Food and Nutrition Extension Units disseminate knowledge on nutrition, scientific methods of cooking, principles of food hygiene and sanitation, and promotion of suitable dietary habits. The Food and Nutrition Board organised the first National Nutrition Week from 1 to 6 May 1982.

A bold initiative has been taken in establishing the North-Eastern Regional Agricultural Marketing Corporation Ltd. (NERAMAC), with headquarters at Guwahati, to enable growers of fruits and vegetables to secure better prices of their produce and to help in accelerating the process of economic development in the region. The Corporation would procure marketable surplus in fruits and vegetables produced in North-Eastern region and undertake their processing and marketing. The Fruit Juice Bottling Plant went into production in April 1982 under the aegis of the Modern Food Industries (India) Ltd., (formerly Modern Bakeries). The plant is producing and marketing apple juice, mango and guava drinks in Delhi, under the brand name *Rasika*. The 33 Community Canning and Preservation Centres are engaged in popularisation of fruit and vegetable preservation methods by offering training mainly to housewives. The centres also provide processing facilities for fruits and vegetables for domestic consumption. The Department also has a consultancy cell, which offers professional services for preparation and appraisal of techno-economic feasibility reports for setting up fruit and vegetable processing units. Under modernisation of rice milling industry, a new scheme for modernisation of hullers is being implemented in Andhra Pradesh, Tamil Nadu and Uttar Pradesh. The scheme provides for supplying modern rice milling machinery to huller owners on subsidy, setting up of demonstration units and holding seminars on the subject.

The Institutes of Hotel Management, Catering Technology and Applied Nutrition and Foodcraft Institutes were transferred to the Ministry of Tourism in October 1982.

Food Corporation of India

The Food Corporation of India (FCI), set up in 1965 under an Act of Parliament, serves the nation in the vital areas of food procurement, storage and distribution, protecting the interest of both the

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farmers and the consumers. The Corporation has an annual turnover of over Rs 6,248 crore.

Besides the annual purchase of 1.5 crore tonnes of foodgrains, FCI also handles imported non-potassic fertilisers and levy sugar.

The Corporation has a provision of about 2 crore tonnes of scientific storage accommodation. The storage capacity is being increased with the financial assistance of the World Bank and under the FCI's own programmes.

For distribution through fair price shops, FCI supplies to state governments and union territories nearly 130 lakh tonnes of foodgrains every year.

The Corporation has 25 modern rice mills in various states. Its solvent extraction plant at Samabanarkoil, Tamil Nadu manufactures edible and industrial grade oil from rice bran. A *dal* mill has also been set up at Lucknow to meet the requirements of the Army Purchase Organisation.

Central Warehousing Corporation

The Central Warehousing Corporation acquires and builds godowns and warehouses for storage of agricultural produce, inputs, agricultural implements and notified commodities.

The storage capacity with the Corporation as on 31 December 1982 was 43.97 lakh tonnes (godowns 26.92 lakh tonnes owned, 16.28 lakh tonnes hired and cover and plinth 0.77 lakh tonnes). Besides this, the Corporation has custom bonded warehouses at Delhi, Amritsar, Ludhiana, Calcutta, Ahmedabad, Bhopal, Hyderabad, Madras, Lucknow, Chandigarh and Bombay to enable exporters/importers to keep the commodities in good condition pending shipment.

DEVELOPMENT PROGRAMME

A new strategy for agricultural development is being implemented from 1966-67. It *inter alia* includes cultivation of high-yielding varieties over larger areas; development of irrigation facilities, particularly exploitation of ground water resources; adequate and balanced use of fertilizers; adoption of need based plant protection measures; and a well organised and systematic supply of inputs, including credit through institutional and other financing agencies. In addition, efforts have been made to bring science and technology closer to the farmers through education and training and a strengthened extension set up. Special emphasis is being laid on programmes for the uplift of the weaker sections of rural population, particularly the small and marginal farmers, agricultural labourers, farmers in drought prone areas, tribal and hill areas, etc.

High Yielding Varieties Programme

High yielding varieties programme is the major plank of agricultural strategy for increasing production of foodgrains in the country. The coverage of area under this programme increased from 18.9 lakh hectares in 1966-67, the year of introduction of this programme, to 4.6 to 5 crore hectares in 1981-82. The coverage during 1982-83 is estimated at 4.76 crore hectares and the target fixed for 1983-84 is 5.2 crore hectares. The crop-wise details are given in table 14.5.

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TABLE 14·5
AREA UNDER HIGH YIELDING VARIETIES PROGRAMME

(in lakh hectares)

Crops	1966-67	1981-82	1982-83 (Anticipated)	1983-84 (Target)
Paddy	8·9	196·9	186·7	225·0
Wheat	5·4	167·5	180·7	182·0
Jowar	1·9	38·8	47·5	48·0
Bajra	0·6	45·8	44·5	47·0
Maize	2·1	16·0	17·4	18·0
Total . . .	18·9	465·0	476·8	520·0

The introduction of high yielding varieties programme has revolutionised Indian agriculture and brought about a phenomenal and rapid increase in foodgrains production in the country. The total foodgrains production has increased from 723.5 lakh tonnes in 1965-66 (before introduction of the high yielding varieties programme) to 13.30 crore tonnes in 1981-82.

Among the various crops included under the programme, high yielding varieties have brought about a spectacular success in wheat production. The total wheat output, which stood at 103.9 lakh tonnes in 1965-66 reached a record level of 355 lakh tonnes in 1978-79 which further improved to 363 lakh tonnes in 1980-81 and 378 lakh tonnes in 1981-82. The production during 1982-83 is anticipated at 4 crore tonnes. A noteworthy aspect of the introduction of high yielding varieties programme is the gradual spread of wheat cultivation in hitherto predominantly rice growing areas.

The production of rice took a spurt after the introduction of high yielding varieties programme coupled with related essential inputs. The production of rice increased from 3.06 crore tonnes in 1965-66 to 5.38 crore tonnes in 1978-79. A remarkable change that has taken place in the country is the cultivation of rice on a large scale in non-rice consuming states such as Punjab and Haryana during *Kharif* season and the cultivation of summer rice in the eastern and southern states.

The progress in respect of coarse grains has, however, not been as fast as in the case of wheat and rice mainly because the farmers have not generally responded to the high yielding technology in the same measure as the latter.

The high yielding varieties programme is being supported by the central sector scheme of establishment of community nurseries of rice and minikit demonstrations programme.

The scheme of establishment of community nurseries of rice is an important part of the development effort for increasing production of rice in India. This was initiated in 1974-75 in the canal command areas of Bihar. Under this scheme, community nurseries of rice are raised at government farms and on tubewell points of farmers for raising seedlings not only for their own use but also for sharing with other farmers of the area who do not possess irrigation facilities at a nominal cost. A subsidy of Rs 1,500 per hectare is being provided by the Central Government to meet part of the cost of inputs.

From an area of 180 hectares covered under this scheme in 1974-75, the community nurseries were raised over an area of 25,000 hectares in 1982-83 for which the Government of India provided financial assistance of Rs 3.75 crore. This also included raising of

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nurseries over an area of 3,000 hectares in the cyclone affected regions of Orissa.

The practice of raising community nurseries of rice not only gives sufficient time for the proper growth of paddy crop, but also enables the farmers to grow a second crop of wheat after harvesting paddy. This practice also helps in the spread of technology, automatic spread of high yielding varieties and ensures minimum plant protection to the nursery followed by a fair level of protection to the early planted crop thereby promoting early establishment and rapid tilling.

The scheme of community nurseries has acquired considerable importance. On an encouraging response from the states, the target for establishment of community nurseries has been fixed at 22,000 hectares for 1983-84 for which the Government of India will provide subsidy of Rs 330 lakh.

The main purpose of minikits demonstration programme is the demonstration of superiority of the new varieties of crops so that these are adopted at a faster pace. Under this programme, minikits containing small quantities of seeds of different high-yielding varieties/hybrids are supplied to the farmers free of cost for demonstration on the fields.

This programme was initiated during rabi/summer season of 1971-72 in the case of rice and was subsequently extended to other crops *viz.*, wheat, barley, *jowar, bajra,* maize and *ragi* in 1974-75. Since then lakhs of minikits containing seed of several high yielding varieties/hybrids have been distributed among the farmers, especially small farmers who have benefited by this programme. The programme was intensified during 1982-83 as a part of the Action Plan for the Productivity Year and as many as 16.01 lakh minikits containing seed of high yielding varieties of rice and wheat and hybrids of *jowar, bajra,* maize and *ragi* were distributed free of cost among farmers for demonstration purposes. The target for 1983-84 is to distribute 13 lakh minikits.

Pulses

Importance of pulses in the economy particularly under dryland agriculture cannot be over-emphasised. Besides, these crops occupy an important place in the diet of our people and also hold a permanent place in the agricultural economy of India due to their importance in the unirrigated farming system owing to their capability to survive under conditions of moisture stress and to fix nitrogen from the atmosphere.

In spite of this, the production did not keep pace with the advancement in the technology and breakthrough in the production of foodgrains covered by green revolution. This is due to the fact that traditionally our farmers have grown pulses not as principal but as bonus crops. In addition, scared by pests and diseases, deterred by low yields and lured by the remunerative cereal crops, the farmers have relegated them to marginal unirrigated lands. India has largest area under pulses in the world.

With a view to augmenting the production of pulses and to bridge the gap of demand and supply, the following strategy has been adopted: (i) introduction of pulse crops in irrigated farming systems; (ii) bringing additional area under (a) short duration varieties of *urd, moong,* etc., in rice fallows by utilising the residual moisture in rabi

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season, and (b) in summer season with irrigation after oilseeds, sugarcane, potato and wheat; (iii) inter-cropping of *arhar* in soyabeen, *bajra*, cotton, sugarcane and groundnut both under irrigated and unirrigated conditions; (iv) multiplication and use of improved pulse seeds; (v) adoption of plant protection measures; (vi) use of phosphatic fertilisers and rhizobial culture; (vii) improved post-harvest technology; (viii) public policies including pricing and marketing of pulses; and (ix) organisation of 'pulse crop villages' in various blocks, both in irrigated and rainfed areas in order to promote an integrated approach to production, procurement and marketing of pulses crops.

The strategy has been built into an ongoing centrally sponsored scheme for pulses development for the implementation of the programme. This scheme is in operation since 1972-73. For this purpose, 56 districts have been selected in various states. The scheme provides financial assistance to the farmers by way of subsidies on certified/truthfully labelled seeds, plant protection chemicals, equipments, operational charges and rhizobium culture. In addition, assistance is also provided to the state governments for laying out demonstration and production of breeder/foundation seeds so as to motivate the farmers to adopt improved package of practices. From 1982-83, the centrally sponsored pulses development programme has been split up into the two components, namely, intensive pulses development programme and summer *moong* production programme. The latter programme envisages extension of areas under *moong* in summer season with irrigation after the harvest of *rabi* crop. As irrigation is a limiting factor for summer *moong* cultivation, a new element of subsidy on irrigation has been introduced during 1982-83. As a result of this, the area under the crop increased from 7.79 lakh hectares in 1981 to 10.53 lakh hectares in 1982 and production from 2.38 lakh tonnes in 1981 to 4.77 lakh tonnes in 1982. With a view to facilitate speedy implementation of the centrally sponsored scheme on pulses development, the state governments have been permitted for 1982-83 to reappropriate funds from one approved component to another to the extent of 25 per cent, subject to the total expenditure not exceeding the funds sanctioned for the programme.

To push the programme further, subsidies on demonstrations and plant protection measures under the scheme were enhanced this year. State governments were also allowed flexibility for reappropriation of funds within the approved components of the scheme to the extent of 50 per cent and also to reappropriate funds from one item to another under the plant protection scheme. The states were also allowed to utilise the funds allocated for certified/truthfully labelled seeds in the event of shortage of seeds supply, to the extent of 50 per cent on plant protection equipment. Subsidy of Rs 200 per quintal on certified seed was also provided and 12,175 quintals of certified seeds of gram, which is one of the most important pulse crops, were supplied.

For quick spread of short duration varieties of pulses and for assessing their performance, a minikit distribution programme is in operation since 1981-82 and is being continued during the remaining period of the Sixth Plan. During 1982-83, 4 lakh minikits were distributed as against 63,444 during 1981-82.

Under the breeder seed production and training scheme, funds are provided for multiplication of breeder seed of short duration/improved varieties of pulses. This is in operation since 1977. Funds are also

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provided for training of extension workers in improved package of practices, who in turn transfer the technology to the farmers.

Oilseeds

Oilseeds are cultivated on an area of about 180 lakh hectares in India. This is contributed by nine oilseed crops, namely, groundnut, rapeseed, mustard, sesame, safflower, niger, soyabean, sunflower, linseed and castor. Linseed and castor oils are mainly put to non-edible use, while oils of other seven crops are utilised for edible purpose.

The average annual production of oilseed crops, based on five yearly average, has increased from 51 lakh tonnes (1949-50 to 1963-64) to 99.89 lakh tonnes (1977-78 to 1981-82).

In view of the high priority given to oilseeds development programme, in the agricultural production programme, the following strategy has been adopted : (1) adoption of improved package of practices on a large scale, (2) extension of area, (3) greater emphasis on the development of non-traditional oilseeds like soyabean and sunflower, (4) increased use of quality seeds, phosphatic fertilizers and plant protection measures, (5) increase in area under irrigated oilseeds, (6) launching of special projects in potential areas and (7) organisation of composite demonstrations, use of large number of mini-kits and intercropping.

To supplement the production of edible oils, commercial cultivation of soyabean and sunflower was introduced in the country during 1971-72 and 1972-73, respectively, under the centrally sponsored schemes. Based on this approach, the following centrally sponsored schemes have been implemented during the Fifth Plan : (1) intensive oilseeds development programme; (2) extension of oilseeds to new irrigated areas; (3) development of sunflower; and (4) development of soyabean.

A production target of 1.3 crore tonnes of oilseeds has been fixed for achievement in the terminal year of the Sixth Plan, on the basis of trendline estimates of production of 101 lakh tonnes. This involves an additional production of 29 lakh tonnes. With a view to raising the production of oilseeds to the targeted level of 130 lakh tonnes, the above programmes have been reoriented and strengthened. The total outlay on account of the share of the Central Government on these programmes has been raised to Rs 65 crore in the Sixth Plan from Rs 14 crore in the Fifth Plan.

The need for accelerating the efforts for oilseeds development in the country has gained further importance with the inclusion of these crops in the Revised 20-Point Programme. It has been recognised that besides making efforts for raising the production of these crops in potential areas, concentrated attention has to be focussed on the development of some very important crops in most potential areas. It has been identified that the development of groundnut in Gujarat, particularly in Saurashtra region, and soyabean in Madhya Pradesh, would go a long way in raising total production of oilseeds in the country. Accordingly, two special projects, *i.e.*, one for intensive development of groundnut in Gujarat and the other five-year soyabean project in Madhya Pradesh, have been sanctioned by the Government of India at a cost of Rs 35 crore and Rs 15 crore respectively to be met in full by the Central Government. The groundnut project in Gujarat aims at raising the production of groundnut to 27 lakh tonnes in 1983-84 from 18 lakh tonnes in 1980-81. Similarly, the soyabean project in Madhya Pradesh aims at expanding the area under soyabean to

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18 lakh hectares in 1985-86 from 4.5 lakh hectares in 1980-81. This is likely to make available a total production of 14.40 lakh tonnes of soyabean in 1985-86.

To give market support to oilseed growers, the Central Government has been announcing support prices for certain oilseeds every year. These prices have been raised during 1981-82 as indicated in table 14.6.

TABLE 14·6 SUPPORT PRICE FOR OILSEEDS

(Rs per quintal)

Crop	Support price		
	1980-81	1981-82	1982-83
1. Groundnut . . .	206	2 70	295
2. Soyabean			
(i) Black . . .	183	210	220
(ii) Yellow . . .	198	230	245
3. Sunflower . . .	183	250	250
4. Rapeseed-mustard . .	—	—	355

Dry Land Agricultural Development

Out of the net cultivated area of about 14.30 crore hectares in the country, about 10.50 crore hectares are dependent on rains. The dryland/rainfed areas contribute about 42 per cent of the foodgrains produced in the country. Bulk of production of coarse grains, pulses, oilseeds and cotton comes from these areas. Because of the poor management skill and low resources of the dryland farmers, the per hectare yield of the crops raised in dryland areas are generally low. Stabilising and elevating crop production in these areas would, therefore, hold the key to achieving stability in the agriculture production. In view of this, a scheme for integrated dryland agricultural development at 24 projects in 12 states was launched in 1970-71/72, in close proximity to ICAR's Dryland Research Centres. The scheme remained in operation as a Centrally sponsored programme till 1978-79 and thereafter transferred to the state sector.

The World Bank has shown interest in the development of rainfed farming areas and with its aid Kandi Watershed and Area Development Project in Punjab has already been launched to lay the basis for sound investment on a large scale in the future to (i) reverse man-made ecological degradation in the lower foothills of the Himalayas; and (b) project and develop agricultural land presently subject to series erosion and flood. The project will cost 6.08 crore US dollars (Rs 51.05 crore), of which 3 crore dollars will be the World Bank loan.

Inclusion of dry-farming in the Revised 20-Point Programme and the Productivity Year 1982, has resulted in further intensification of efforts in the field of dryland/rainfed farming. Necessary strategy developed for the dryland farming is as follows : (a) *Intensive Approach* : A total number of 4,246 micro watersheds were selected against the target of 3,824 during 1982-83 for development through multi-disciplinary approaches, including crop production, horticulture, social forestry, pasture development, water harvesting, pest control, use of modern implements like seed-cum-fertiliser drills, improved seed. etc. The area covered under these micro watersheds is about 29 lakh hectares against the target of 38.24 lakh hectares. (b) *Extensive Approach* : Under this approach, all the on-going programmes and resources are used optimally and the available technology disseminated for increasing the productivity of dryland areas. Till

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March 1983, a total area of about 174.5 lakh hectares has been brought under dryfarming practices.

The Centrally sponsored scheme on pilot project on propagation of water conservation/harvesting technology for dry-farming areas has been approved to be taken up in 19 districts of Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal and Tamil Nadu. The objective of the scheme is to elevate and stabilise agricultural production in rainfed areas through scientific development and management of watersheds. The total cost of the scheme is Rs 5 crore in 1983-84 and 1984-85. A cluster of six or seven sub-watersheds of about 100 hectares each will be developed in each of the identified districts.

The ICAR in collaboration with Department of Agriculture and Cooperation and Ministry of Rural Development have decided to adopt and extend technical guidance for 42 micro-watersheds (these will include 19 above mentioned watersheds, 16 micro-watersheds to be financed by Ministry of Rural Development and 7 by ICAR) for intensive and integrated development of dryland farming. These micro-watersheds are intended to serve as model centres or focal points for development of dryland farming, where farmers from neighbouring watersheds can come and see for themselves the scientific techniques and practices on dryland farming which they could adopt in their own lands.

A centrally sponsored scheme to popularise the use of seed-cum-fertiliser drills growing of improved varieties and application of fertilisers, etc., has been formulated at a cost of Rs 5 crore as share of Central Government during 1983-84 and 1984-85. The scheme is likely to be sanctioned.

SOIL CONSERVATION

On the basis of factors ranging from climate to physiography, the country has been delineated into 10 soil conservation regions where the land problems and the broad management practices have been identified. The National Commission on Agriculture estimated the extent of land degradation to be about 17.50 crore hectares, which is more than half the entire sub-continent. This problem area constitutes of 8.21 crore hectares of rainfed non-paddy land, 1.949 crore hectares of forest land and another 2.256 crore hectares of permanent pastures, culturable wasteland and other culturable lands. Besides, 4.294 crore hectares are subject to special problems of gullies and ravines, alkalinity and salinity, shifting cultivation, forest, riverine lands, waterlogging, desert, coastal sands, etc.

Soil and water conservation programmes constitute an important activity to protect the soil resources of the country, check soil erosion and land degradation and reclaim degraded and problem lands. The programmes are being implemented through Central and Centrally sponsored sector schemes and by state governments.

Till the end of 1982-83, about 2.60 crore hectares is likely to be treated at a total cost of Rs 947 crore. The programme consists of contour bunding, bench terracing, land levelling and shaping as well as improved agronomcal practices on agricultural lands. On non-agricultural lands, biological measures such as afforestation and grassland development, etc., are adopted. For better moisture conditions and balanced ecology, *nalla* plugging, farm ponds, erosion control/water harvesting structures are constructed at suitable locations.

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The watershed management programme in the catchments of river valley projects which was initiated during the Third Plan, is presently being implemented in 29 such catchments to prolong the life of the major reservoirs by reducing sedimentation. These catchments cover 17 states, one union territory and Damodar Valley Corporation. The work has been carried out on selected priority watersheds of size 2,000 to 4,000 hectares each. Silt load data have shown that programme has reduced the sediment production with increase in the coverage of area.

Another Centrally sponsored scheme of integrated watershed management in the catchments of 8 flood prone rivers of the Gangetic basin has been taken up for improving the ability of the catchment for absorbing the greater quantities of rain water, reducing erosion and consequent silt load in the channel flow. Besides treating agricultural lands for controlling sheet erosion, the programme of constructing erosion control cum small storage works at extensive locations coupled with development of new production base through restoration of degraded lands, has been taken up as an important component. During the first three years of the Sixth Plan, a total area of 48.946 thousand hectares is likely to be treated at a cost of Rs 9.48 crore. The scheme has been taken up in the catchments of Upper Yamuna (above Tajewala), Sahibi, Upper Ganga (above Rishikesh), Gomti, Punpun, Ajoy, Sone and Roopnarain covering 7 states and one union territory.

The All India Soil and Land Use Survey Organisation carry out survey of the catchments for delineating and codifying watersheds and indicating their *inter se* priorities. The organisation has collaborated projects with Indian Space Research Organisation for finding methodology to use remote sensing data including satellite imageries. A Remote Sensing Unit has already been established. The organisation has also brought out a catalogue of nearly 171 soil survey reports and a compilation of infiltration characteristics for 75 identified soil series for ready reference.

Recognising the fact that further horizontal expansion of land for agricultural purposes is limited, a programme for restoration of about 4 lakh hectares fallow lands (other than current fallows) to productive land management practices such as cultivation, afforestation, grassland and orchard development, etc., has been taken up during the Productivity Year 1982-83 along with special measures for control of erosion by wind and water. This programme has been confined to 8 states, namely, Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh, each with a target of 5 lakh hectares when they together account for about 80 lakh hectares of such lands. The programme is to bring about 5 per cent of the area lying as fallow (other than current fallows) under remunerative land use management. The progress reported by most of the states is appreciable, in as much as some of the states like Uttar Pradesh and Tamil Nadu have even exceeded their targets before the expiry of the year.

For effective implementation of the soil conservation programme, 14 states and two union territories have enacted Soil Conservation Acts. To arrest extensive denudation of forest, Forest Conservation Act was also passed in 1980 to ensure that no forest land is denuded or diverted for non forest uses without prior approval.

For policy making and enforcing better coordination between the

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line departments, a 2-tier national body comprising a National Land Board and a National Land Resources Conservation and Development Commission has been set up in the Ministry of Agriculture. While the National Commission will identify problems and issues relating to the health and care of the soil, the Board will consider the recommendations of the Commission relating to larger issues for framing national policies with a view to manage inelastic land resources of the country scientifically. Similar apex bodies namely state land use boards have already come into existence in 20 states and six union territories for providing policy directions regarding the health and care of the soil and better coordination amongst the concerned departments.

FERTILIZERS

Fertilizer is the key input in increasing agricultural production. Every tonne of nutrient increases the yield by about 10 tonnes of foodgrains. The annual consumption of fertilizer is thus a good indicator of the country's performance in crop production. India ranks very high in the world in terms of fertilizer consumption which was 60.64 lakh tonnes during 1981-82, an increase of 9.9 per cent over the previous year. The consumption is expected to be about 64.18 lakh tonnes in 1982-83.

The indigenous production of nitrogenous and phosphatic fertilizers was 40.93 lakh tonnes in 1981-82. To bridge the gap between the requirements and domestic availability, 20.40 lakh tonnes of nutrients were imported.

Organic Recycling

In the context of improving soil fertility, conservation of organic resources and increasing the efficiency of chemical fertilizers, the programme of organic recycling in conjunction with chemical fertilizers is being given added attention. The programme like rural composting, urban composting, green manuring, utilisation of sewage and sullage, biogas slurry, etc., are being implemented in the state sector.

With the objective of fixing biological nitrogen from the atmosphere using selective strains of renewable micro-organisms, a national project for development and use of bio-fertilizer is being launched at an outlay of Rs 2.82 crore during the remaining period of Sixth Plan. Under the project, one national centre, six regional centres and 40 sub-stations will be supported. The national and regional centres will produce 18,75,000 packets (200 gram each) of rhizobium culture per annum. Similarly, the regional centres and sub-centres will annually produce 40,000 tonnes of blue green algae. Besides, a large number of training, orientation courses and demonstration programmes will also be conducted periodically in the national and regional centres on the production technology, field multiplication and use of bio-fertilizers under the project.

SEEDS

Seed is the basic input for agriculture. Production and distribution of the quality seeds are, therefore, absolutely essential for increased agriculture production. Government recognised the importance of quality seeds long back and in 1963 the National Seeds Corporation was set up for production and distribution of quality seeds. Government also set up the state farms corporation to develop modern farms, mainly for production of seeds, in 1969. During 1953-54 to 1982-83 the quantum of improved/certified seeds distributed in the country had increased by about 23 times.

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Breeder seeds, being the first of stage of seed multiplication, received due attention during 1982-83. In order to overcome shortage of this commodity a massive production programme was initiated. The National Seeds Corporation and State Farms Corporation of India were also entrusted with the task in addition to agriculture universities and institutions under Indian Council of Agricultural Research (ICAR).

In order to develop infrastructure required for production, processing and distribution of seeds, the Central Government, in collaboration with the World Bank, launched a national seeds programme in 1976. The programme covers Punjab, Haryana, Andhra Pradesh, Maharashtra, Bihar, Karnataka, Orissa, Rajasthan and Uttar Pradesh. The programme visualises an investment of Rs 89.42 crore out of which World Bank assistance would be of the order of US $ 41 millions. Under this programme, eight vegetable packing and processing centres have been commissioned. Out of 21 processing plants, four have been commissioned and the balance 17 are at various stages of construction. Twenty-six transit stores having capacity of 2.2 lakh quintals are being set up. The National Seeds Corporation have already completed two stores and the construction of other stores are at various stages of completion. Twenty-four farms covering 15,795 hectares area are being developed for production of foundation seeds.

Quality Seeds

Quality of seeds is extremely important. Adequate provision for ensuring quality of seeds has been made in the Seeds Act which was enacted in 1966. The state governments have been delegated powers to enforce the quality of seeds. Fifty-one seed testing laboratories, including the Central Seed Laboratory, are working in the country. These laboratories are being strengthened. In addition, almost all the states have seed certification agencies, which maintain strict vigilance on the quality of seeds.

The agricultural universities and ICAR institutions have identified a number of new varieties which are less susceptible to pests and diseases and some of them are also of short duration. During 1982-83, 80 new varieties of seeds, including 25 varieties of pulses and 11 varieties of oilseeds, were notified. Multiplication and testing of more new varieties are continuing.

India has also been exporting seeds. The National Seeds Corporation have exported seeds to various countries. Recently, it has been decided to export 50,000 quintals of wheat seeds to Bangladesh every year during next five years.

The National Seeds Corporation is an apex organisation in the seed sector in India. Their production of certified seeds during 1982-83 is likely to be of the order of 6.76 lakh quintals against 4.13 lakh quintals in 1981-82. The production of foundation seeds during 1982-83 has also gone up to 1.04 lakh quintals against 0.74 lakh quintals in 1981-82.

The State Farms Corporation of India has 12 big farms with an area of 36,671 hectares. During 1982-83, the estimated production of seeds of the Corporation is 4.74 lakh quintals against 3.20 lakh quintals in 1981-82. The Corporation has considerable expertise in the farm development. Many countries of West Asia and Africa have asked the Corporation of their expertise in developing farms in those countries.

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PLANT PROTECTION

The year 1982-83 remained free from the desert locust invasion and gregarious breeding. The few stray groups of adults and hoppers observed at a few places in Rajasthan were intercepted and controlled in the border areas. During the Productivity Year 1982, special summer oilseeds and pulses crop survey was undertaken in about 50,000 hectares. This was in addition to the usual *kharif* and *rabi* surveys undertaken every year. During 1982-83, the *kharif* and *rabi* surveys totalled 4.55 lakh hectares.

As a part of the Productivity Year programmes, a target of adoption of 115 villages for intensive plant protection coverage was fixed. This target was exceeded inasmuch as 188 villages were adopted, including the 20 villages adopted by the pesticides industry.

During 1982-83, four Biological Control Stations were set up, one each at Solan (Himachal Pradesh), Burdwan (West Bengal), Sriganganagar (Rajasthan) and Surat (Gujarat), bringing the total number of centres in the country to nine.

Under the Centrally sponsored scheme for the control and eradication of pests and diseases of agricultural importance including weed control in endemic areas, an area of about 14.22 lakh hectares was proposed to be covered during 1982-83.

The consumption of pesticides is expected to reach the level of 50,000 metric tonnes during 1982-83.

AGRICULTURAL IMPLEMENTS

The States Agro Industries Corporations have been set up in 17 states as state sector undertakings, in which both the Central and state governments are equal contributors. The Corporations are engaged in providing large range of inputs and services to the farming community and in setting up of agro based industries. Since 1979-80, the scheme has been transferred to the state sector.

Agro Industries Corporations

The Agro Industries Corporations have been advised to revamp their working towards achievement of better financial results as also to re-orient their policy towards manufacture, distribution and popularisation of improved and inexpensive machines, tools and implements suited to the agro climatic conditions of their states.

Agro Service Centres

The agro service centres scheme was introduced in 1971 with the twin objective of providing employment to trained entrepreneurs and inputs to the farmers at their door steps at reasonable prices. Since the inception of the scheme 3,205 centres had been set up till March 1982. The scheme was transferred to the state sector from April 1979. About two-third of the centres are estimated to be functioning.

AGRICULTURAL RESEARCH AND EDUCATION

The Department of Agricultural Research and Education, set up in 1973, is responsible for coordinating research, education and extension education in the field of agriculture, animal husbandry and fisheries in India. Besides, it also helps in bringing about inter-institutional and intra-institutional collaboration, both at national and international levels engaged in allied fields.

Indian Council of Agricultural Research

Farm research in the country is carried out and coordinated by a number of public and quasi-public institutions, spearheaded by the Indian Council of Agricultural Research (ICAR). Set up in 1929,

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it is the apex body for formulating plans and coordinating agricultural, animal husbandry and fisheries education and research and their application.

Agricultural Education

In the field of agricultural education, ICAR performs a role similar to that of the University Grants Commission. Almost every state has an agricultural university, now numbering 23, including the Indian Agricultural Research Institute, New Delhi, with the status of a deemed university for education and research, both at post-graduate and doctoral level.

With a view to imparting practical and skill-oriented training to farmers, women, unemployed village youth, school drop-outs, etc., *Krishi Vigyan Kendras* (Farm Science Centres) have been established by ICAR in different parts of the country.

ANIMAL HUSBANDRY

As cattle and buffalo occupy an important position in the rural economy of this country, a high priority has been given for their development in the national plan.

Cattle Development

India is the home of some of the best breeds of cattle and milch buffalo in the world, including the well-known tropical milk breeds, like Gir cattle and *murrah/surti* buffalo. Some fine draft cattle breeds like *khillari, hallikar, hariana, ongole* and *kankrej,* etc., are also our prized possession. The approach adopted for cattle development is grading up of indigenous breeds by selective breeding. However, in the case of nondescript cattle, which constitute a major proportion of population, crossbreeding with recognised temperate dairy breeds, such as Jersey and Holstein Friesian, etc., has been adopted to enhance the milk production.

Important projects for cattle development are Operation Flood and intensive cattle development projects. Other activities include establishment of nucleus breeding herds, maintenance of herd books for nationally important breeds of cattle, programme for artificial insemination, introduction of frozen semen techniques, etc. An integrated approach has been developed to give simultaneous attention to improved breeding, augmentation of feed and fodder resources, effective health cover, extension services and marketing facilities.

A network of about 15,000 artificial insemination units has been set up in the rural areas. The Central Frozen Semen Production and Training Institute at Hessarghatta is being strengthened and expanded to produce high quality frozen semen for cattle and buffalo development as well as to develop adequate technical manpower by imparting training on use of frozen semen technology in the field. Another important Central sector scheme is on crossbreeding of cattle with exotic dairy breeds and improvement of buffalo using frozen semen technique outside Operation Flood areas.

Fodder Development

Seven regional stations for forage production and demonstration have been established in different agro-climatic conditions in the country by the Central Government with the object of achieving quick transfer of technology on all aspects of fodder production, conservation and utilisation and to assist the state agencies in the conduct of their extension programme. Introduction of new agro-technology now enables the farmers in the valley of Kashmir to grow *berseem* in the paddy fallows and get valuable fodder in spring, without in any way disturbing the normal paddy cultivation. New fodder species have

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been identified for use in the upland rainfed areas and also for winter feeding in the temperate region of the country.

Significant breakthrough has been achieved in the production of pasture legume seeds for use in grassland development. New species varieties such as *Stylosanthes hamata, S. Scabra, S. Viscosa,* etc., have been introduced and large scale seed multiplication undertaken for distribution to the forest departments, area of drought prone areas programme and other interested agencies.

The Central Fodder Seed Production Farm at Hessarghatta near Bangalore which was started with the collaboration of Australia has become fully operational. Improved varieties of fodder seeds are being multiplied at this farm. A new high yielding variety of maize has also been evolved. The production of foundation/certified seeds of the recommended high yielding varieties was further stepped up by the regional stations and the seed farm.

Fodder minikit demonstration programme has been intensified to cover 22 states and the union territories and over 19,000 kits were supplied during the *Kharif* and *Rabi* seasons. This programme has helped in educating the farmers on the importance and need to use elite seeds of high yielding varieties for enhancement of fodder production.

Poultry Development

Egg production in the country recorded an increase from 234 crore in 1961 to about 1,300 crore in 1982. Broiler production rose from 40 lakh birds in 1971 to over 4 crore in 1982.

Scientific poultry breeding programme in egg laying strains has been taken up by the Central Poultry Breeding Farms located at Hessarghatta, Bombay and Bhubaneswar and in meat type strains at Chandigarh.

Three Random Sample Test Units located at Hessarghatta, Bombay and Bhubaneswar are providing useful service to poultry farmers, hatcheries and poultry breeding farms by evaluating the performance of the commercial layer and broiler stocks under uniform conditions of feeding and management.

The newly established Central Duck Breeding Farm at Hessarghatta has become fully operational. The production of hatching eggs and improved quality ducklings have started. The farm is in a postion to meet the full requirement of quality ducklings of various states/union territories in the country.

The Central Training Institute for Poultry Production and Management, Hessarghatta, is imparting training to the officers of states/union territories/agricultural universities and private sector hatcheries/poultry breeding farms in various specialised poultry fields, *viz.*, poultry breeding and genetics, nutrition and feeding, management and farm economics, poultry marketing and technology and chick sexing. In addition to the training programme, the Institute provides sophisticated feed analytical facilities to the poultry industry. The newly established Regional Feed Analytical Laboratory, Chandigarh, has undertaken analysis of poultry feeds.

The marketing of eggs and poultry at national and regional level is being handled by the National Agricultural Cooperative Marketing Ferderation of India Ltd. (NAFED).

Slaughter Houses

There are nearly 2,800 licensed municipal slaughter houses in the country which are producing 13 lakh tonnes of meat annually. To

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supply wholesome meat to the consumers and also for economic utilisation of animal by-products, modernisation of slaughter house programme has been taken up in different states. As such, 3 modern slaughter houses have been completed at Deonar (Bombay), Usgaon (Goa) and Durgapur (West Bengal) and six are under implementation (Calcutta, Delhi, Madras, Hyderabad, Durgapur and Jammu and Kashmir). To implement these projects, nine meat corporations have been formed in different states as public sector enterprises.

Piggery Development

Pork production has recently made rapid strides in India and it has started functioning as an economic enterprise with the establishment of eight modern bacon factories in different parts of the country in the public sector. In addition to that, there are about 144 meat processing units operating under different public and private sector to cater wholesome pork and pork products to the consumers. Some of these bacon factories are also operating as composite meat plants. During different plan periods, 77 pig breeding farms have been established.

Piggery is a very important area of animal husbandry development programme in north-eastern states. As such, 4 regional state pig breeding farms under North Eastern Council have been established in Arunachal Pradesh, Mizoram, Tripura and Sikkim. To supplement the existing breeding stock of these farms about 1,133 exotic pigs have been imported and distributed to various states.

Sheep Development

The totai sheep population of India is about 4.09 crore (1977), the sixth largest in the world. The average wool yield of the sheep is 0.8 to 0.9 kg per annum, whereas in other countries sheep like merino/rambouillets produces about 4 to 5 kg a year. The total wool production in the country is estimated at 3.6 crore kg (1981-82). Out of this, about 10 per cent is apparel type for fine clothing and the remaining for production of superior carpets, and inferior carpets, *namdas* and army blankets. The total spindlage for utilising apparel wool established in the country is 25 lakh kg and the wool required to run these spindles is 3.5 crore kg (single shift). India imports 1.6 to 1.8 crore kg of fine wool at the cost of about Rs 37.5 crore every year.

The value of woollen carpets produced has risen from Rs 13.28 crore in 1968-69 to Rs 104.9 crore in 1979-80. The total availability of wool for carpet manufacture is about 2 crore kg which is sufficient to meet the current requirement of carpet industry.

To improve the genetic make-up of the sheep, the total requirement of fine wool rams in the country to cover the total breedable ewes is 1.7 lakh. To achieve this, 90 sheep breeding farms and nearly 1,340 extension centres have been opened. These measures have shown some results and the total raw wool production which was only 2.75 crore kg in 1961 has gone up to 3.60 crore kg in 1981-82.

To further boost the sheep industry, an exotic sheep breeding farm has been established at Hissar. The farm has distributed about 4,200 selected exotic/cross-bred rams to different states since its establishment. The farm also trains officers and shepherds in modern sheep management. To popularise the modern methods of machine shearing of sheep, shearers from different states are also trained. To im-

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prove the marketing and grading system of wool in the country, five wool boards/sheep corporations have been established.

Animal Health

Provision of adequate veterinary aid is an essential pre-requisite for obtaining optimum production from the livestock. Approximately 13,600 veterinary hospitals and dispensaries and about 450 mobile veterinary dispensaries function in the country to provide veterinary aid. Veterinary polyclinics with facilities for treating clinical, surgical, gynaecological and nutritional disorders have also been set up in some important towns. Disease investigation laboratories have also been provided in different states and union territories for aiding diagnosis of animal diseases. Veterinary training, including post-graduate and doctorate training, is imparted at 22 veterinary colleges in the country. Additionally, research on animal disease problems is conducted in two national research institutes, namely, the Indian Veterinary Research Institute, Izatnagar, and the Central Sheep and Wool Research Institute, Avikanagar, Jaipur.

African horse sickness, a dreadful disease of horses, has been eradicated from the country. Swine fever has also been largely controlled and its incidence confined to a few areas in the north-eastern states. The incidence of rinderpest is now considerably reduced and it remains confined to only certain pockets in the country. Approximately 50 lakh vaccinations are being carried out annually under the foot and mouth disease control programme. With a view to preventing ingress of exotic diseases into the country through importation of livestock/livestock products, four quarantine stations have been set up at Delhi, Bombay, Calcutta and Madras.

Animal Husbandry Statistics

To create a sound data base in the animal husbandry sector, a centrally sponsored scheme "Sample Surveys for Estimation of Production of Milk, Eggs, Wool and Meat" has been sanctioned during the Sixth Plan. All states are expected to be covered under the surveys.

DAIRY DEVELOPMENT

There are at present 215 dairy plants in the country in the public and cooperative sectors. Of these, 111 are liquid milk plants, 34 milk products factories and 70 pilot milk schemes/rural dairies. Against their combined installed capacity of 121 lakh litres a day, the average throughput of milk was 73.5 lakh litres during 1982.

The dairy development project 'Operation Flood I' which was taken up in 10 states in 1970 formally came to an end in March 1981. Under it, a sum of Rs 116.54 crore was spent on various action items to step up milk production. The crucial step in the project was the setting up of 4 Mother Dairies at Bombay, Delhi, Madras and Calcutta. Besides, 8,039 villages were covered under technical input programme.

A massive programme of integrated dairy development under 'Operation Flood II' was launched in 1978. The project involves an investment of Rs 485.5 crore over a period of seven years and seeks to cover about one crore rural milk producers families to build a viable self-sustaining dairy industry by 1985. This will enable milk producers to rear a national milch herd of some 1.5 crore productive cross-bred cows and upgraded buffaloes. An expenditure of Rs 122.44 crore has already been incurred till December 1982 under the

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project. Besides, three integrated cattle-cum-dairy development projects are under implementation with the World Bank assistance, one each in Rajasthan, Madhya Pradesh and Karnataka at an estimated cost of Rs 117.43 crore.

FISHERIES

Fish production in India has shown an increase from 7.52 lakh tonnes in 1951 to 24.24 lakh tonnes (14.41 lakh tonnes from marine resources and 9.83 lakh tonnes from inland sources) in 1981. High priority is being continuously laid on the development of this sector in view of the extended jurisdiction over 320 km of sea from the coastline. Concerted efforts are also being made for providing infrastructural facilities, etc., for supporting fishing activities in the zone. The value of fish produced during 1981-82 was about Rs 1,189 crore.

During 1981-82, 70,100 tonnes of marine products of a value of Rs 286 crore were exported. During the first eight months of 1982-83, export of marine products went up by 32 per cent as compared with the corresponding figure of 1981-82 in terms of value.

Mechanisation

The programme of mechanisation of fishing crafts continued on selective basis. While mechanised boats have been introduced freely in areas having low density of fishing efforts, these have been restricted in areas having already a large number of fishing boats. The number of mechanised boats increased from 16,999 in 1981-82 to 18,135 in 1982-83. The strength of present commercial deep sea fishing fleet (20 metre length and above) is 114 consisting of 68 vessels fully owned by Indian companies and 46 vessels on charter. To augment deep sea fishing capability, the government has taken a number of measures including providing of subsidy up to 33 per cent of the cost for indigenous construction of vessels, permitting charter of foreign fishing vessels and joint venture, authorising import of vessels and acquisition of large vessels for survey and training.

Fishing Harbours

To exploit marine fish resources, landing and berthing facilities for fishing crafts are being provided at various major and minor ports. Fishing harbours capable of handling small and medium size fishing vessels have been developed at the minor ports of Tuticorin, Mallipatinam, Vizhinjom, Kasargode, Karwar, Dhamra and Port Blair. In addition, 77 small landing and berthing facilities have been created along the coastal area of the country. For the operation of medium and large size deep sea fishing vessels, fishing harbours have been developed at the major ports of Cochin, Roychowk and Vishakhapatnam (Stage I and II).

Construction of fishing harbours at the major ports of Madras and minor ports of Malpe, Honnavar, Kodiakarai and Karanja is nearing completion. Construction of fishing harbours at major port of Bombay and minor ports of Veraval, Mangrol, Porbundar, Kakinada, Nizampatnam, Bavanapadu, Ratnagiri, Needikara, Neeleswaram, Chinnamuttam, Digha, Valinokam, Munakkakadvu, Cheravathur and Mangalore is in progress. Projects at Veraval and Mangrol in Gujarat, Kakinada, Nizampatnam and Visakhapatnam (Stage II) in Andhra Pradesh are being implemented as integrated marine fisheries project with World Bank assistance. New landing facilities at nine centres have been approved recently with a view to promote exploitation of marine resources.

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Exploration of Marine Fisheries

The Exploratory Fisheries Project, Bombay has been undertaking exploratory survey in the offshore and deep sea waters from 11 bases with the help of 22 trawlers. The vessels are large and equipped for diversified fishing like midwater and pelagic trawling, purse seining, long lining and squid-jigging. The project has completed survey of 90 per cent area within 40 fathom depth and the results are being made available to the fishing industry. Fishery survey in the deeper waters outside 40 fathoms has commenced and deep sea prawn and deep sea fishes have been located at the edge of the Continental Shelf.

Integrated Fisheries Project

The important activities of the Integrated Fisheries Project, Cochin include (i) experimental fishing; (ii) production and marketing of diversified fish products; and (iii) training of personnel of fish industry. The workshop and slipway of the project gives servicing facilities for the project vessels, sister organisation and private enterpreneurs in fishing industry. The project has set up a modern aluminium canning plant for the utilisation of pelagic fishery resources.

Inland Fisheries

India has vast potential resources for development of inland fisheries which mainly comprise of tanks and ponds, lakes, reservoirs, brackish water estuaries, swamps, etc., and large stretches of rivers and their tributaries. Over the years the fish production from these sources has increased from 6.9 lakh tonnes in 1971 to about 9.5 lakh tonnes during 1981. The programmes and policies of the government involve introduction of a number of beneficiary and culture oriented programmes for enhancing fish production by following systematic scientific aquaculture activity.

Under the Centrally sponsored scheme of development of aquaculture and inland fisheries project with World Bank assistance 108 Fish Farmers' Development Agencies (FFDA) are in operation in the country to take up task of bringing more culturable water areas into intensive fish farming activity. So far these FFDA have brought under the culture about 18,000 hectare water area benefiting more than 20,000 trained fish farmers. The average productivity of the fish tank has gone up from a mere 50 kg/hectare during 1973-74 to 582 kg/hectare in 1978-79 and to about 730 kg/hectare during 1981-82. Each FFDA has adopted two village ponds for maximising fish production and to act as total aquaculture technology centres to demonstrate the viability of fish farming.

With the introduction of these beneficiary oriented programmes and more and more water areas being brought under scientific fish farming, the demand of quality fish seed has increased over the years and with this view in mind massive fish seed production programme has been introduced in the Sixth Plan. Under the inland fisheries project with the World Bank assistance 27 commercial fish seed hatcheries are being set up which on full development would be able to produce about 46 crore quality fish seed per annum. Another massive national fish seed programme under the Central sector has recently been taken up in 1982-83 under which 25 commercial fish seed hatcheries would be set up in the selected states, designed to produce about 25 crore seed per annum. In addition to these, 50 FFDA operating under the Centrally-sponsored scheme of development of aquaculture are being strengthened with a small size fish seed farm with facilities of controlled breeding and hatching. This programme

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will add another 19 crore quality seed per annum for distribution to the fish farmers. To encourage fish seed production in the private sector through progressive fish farmers of FFDA, the distribution of induced breeding mini kits has been introduced during 1982-83. Under this component, 20 selected fish farmers in each of 108 FFDA operating under inland fisheries project and development of aquaculture programme are benefited.

In order to introduce scientific fish culture in the reservoirs a pilot study has been introduced in Rajasthan with World Bank assistance.

An all-India inland fish marketing survey has just now been completed by the Indian Institute of Management, Ahmedabad with World Bank assistance to go into the details of the existing and future infrastructural facilities for fish, fish seed production and their marketing from all potential resources.

A Centrally sponsored scheme for development of brackish water fish farming with area development concept has recently been taken up by the Ministry of Agriculture to involve small and marginal farmers in the maritime states and three selected inland states where there is potential ground saline water for culture of brackish water fishes and prawns on commercial scale. This programme will cover 1,500 hectare brackish water area and benefit about 1,000 fish farmer families with an outlay of Rs 500 lakh as the Government's share of expenditure. To meet the demand of quality prawn/brackish water fish seed under this programme commercial prawn/fish seed hatcheries will also be set up.

Training and Research

Training facilities are available at the Central Institute of Fisheries Education, Bombay and its unit at Inland Fisheries Training Centre, Barrackpore and Regional Training Centre at Agra. A Central Fisheries Extension Training Centre at Hyderabad also trains candidates in extension techniques relating to fish culture. These Institutions are under the administrative control of the Indian Council of Agricultural Research.

The Central Institute of Fisheries, Nautical and Engineering Training, Cochin with its unit at Madras is training candidates for marine fisheries operations for manning the fishing vessels and shore establishments. Another unit of the Institute has been set up at Visakhapatnam to train candidates as 'fishing second hands' and engine drivers of fishing vessels.

The three Institutes, *viz.*, Central Marine Fisheries Research Institute, Central Institute of Fisheries Technology at Cochin and Central Inland Fisheries Research Institute, Barrackpore (West Bengal) are engaged in research on various problems relating to marine and inland fisheries.

Foreign assistance has also been received for the construction of fishing vessels and training of personnel.

FORESTRY

In India, forests occupy an area of nearly 750 lakh hectares, about 22.8 per cent of the total geographical area. The national forest policy aims at maintaining one-third of the total geographical area under forests. But due to increase in population and consequent heavy pressure on forest land for diversion to cultivation, river valley projects, industrial estates and many other uses, 43.28 lakh hectares of forest area were lost during 1951–1980. This has happened despite the guidelines issued by the Union Government that forest area should not be diverted to non-forestry uses and in case of any in-

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escapable diversion, it should be done with the concurrence of the states and the loss of forests should be adequately compensated by providing, as far as possible, equivalent alternative land for afforestation. In view of this the Government of India has enacted the Forest (Conservation) Act, 1980, to ensure that no reserved forest can be converted into any other type of forest and that no forest land can be used for any non-forest purpose without the prior approval of the Central Government. As such, an Advisory Committee has been constituted to consider the diversion cases of the forests.

Table 14.7 shows the classification of area under forests during 1977-78, 1978-79 and 1979-80.

TABLE 14·7
AREA UNDER FORESTS

('000 hectares)

Description	1977-78	1978-79	1979-80
1. From the point of view of exploitation			
(i) Exploitable (forests in use) . .	39,735	38,741	38,900
(ii) Potentially exploitable . .	15,044	15,981	16,000
(iii) Others	19,355	19,472	19,900
Total	74,134	74,194	74,800
2. By ownership			
(i) State owned	69,553	69,658	70,200
(ii) Corporate bodies . . .	3,723	3,723	3,700
(iii) Private individual . . .	858	813	900
Total	74,134	74,194	74,800
3. By legal status			
(i) Reserved	38,500	39,203	39,400
(ii) Protected	22,990	22,832	22,900
(iii) Unclassed	12,644	12,159	12,500
Total	74,134	74,194	74,800
4. By composition			
(i) Coniferous	7,466	7,165	7,800
(ii) Non-coniferous or broad leaved (including bamboo stands) . .	66,668	67,029	67,000
Total	74,134	74,194	74,800

Resources

Of the 750 lakh hectares of forest area, about 610.6 lakh hectares are either exploited (447.6 lakh hectares) or potentially exploitable (163 lakh hectares), the remaining forest area being either inaccessible or unproductive or required to be maintained for protection purposes. The outer Himalayas constitute one of the main forest belts of the country supplemented by large areas in the Western Ghats, Deccan Plateau, Eastern Ghats and the north-east region.

The forests of the country have been divided into 16 type groups ranging from tropical wet evergreen forests to the Alpine types; the tropical deciduous types (both moist and dry) constituting 70 per cent of the forests. Most of our forests are natural.

The Indian forests yield a large number of major and minor forest products. The major products are timber and firewood. These are used for industrial and fuel purposes. Apart from providing raw materials for pulp, panel products, match wood and other wood based industries, forests are also a source of a number of useful minor products like bamboo, canes, *Kendu* leaves, grasses, essential oils, medicinal plants, lac, resigns, fatty oils and fats, gum, tanning materials, dyes, animal

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products, etc. Quite a number of these are valuable foreign exchange earners.

Organisation

The Ministry of Agriculture and Co-operation deals with forestry at the Centre. The Inspector-General of Forests is the ex-officio Additional Secretary to the Government of India for all forestry matters. The Central Forestry Commission with the Inspector-General of Forests as its chairman, services the Central Board of Forestry. The Board, which coordinates policy and other matters at the national level, meets annually. The Forest Research Institute and Colleges are under the administrative control of the Ministry.

A National Poplar Commission was established in 1965 to study scientific, technical, social and economic aspects of poplars and willow cultivation. India is a member of the International Poplar Commission.

The Government owned forests in the states are under the administrative control of respective state governments. The head of the forest department in the state is the chief conservator of forests. Forests and wild life figure in the concurrent list.

The Indian Forest Service extending to all states and union territories was constituted in 1966.

National Policy

In 1952, the Government of India enunciated the new forest policy replacing the 1894 policy. The new policy proposed the classification of forests on a functional basis, *viz.*, protection forests, national forests, and village forests. The policy considered it desirable to establish tree lands wherever possible for the amelioration of the physical and the climatic conditions, and for promoting of the general well-being of the people. It also laid down that it should be the aim to have one-third of the country under forests. It made provision for ensuring progressively increasing supplies of fodder, timber for agricultural implements and firewood to release cattle dung for use as manure. The national policy also opposed the indiscriminate extension of agriculture by the excision of forests, as this not only deprives the local population of wood, grass, etc., but also deprives the land of its natural defences against dust storms, hot winds and erosion. It also emphasised the need for affording protection to wild life by its proper management for scientific study and for recreational purposes.

The national tree planting festival *Van Mahotsava* is observed annually all over the country. World Forestry Day too is celebrated on 21 March every year. To promote wild life conservation, first week of October has been dedicated as Wild Life Week.

Development

The strategy for overall forestry development in the country envisages not only a major thrust in the production forestry sector but also ushering in an energetic and viable social forestry programme in order to meet the demand for fuel wood, green manure, fodder, etc., in the country. While production forestry envisages raising of industrial plantations on a large scale to meet the industrial raw material requirements, social forestry programme is confined to the uncultivated lands and also in conjunction with farm lands. It is for a wood-based production system for (i) site improvement, (ii) habitat improvement, and (iii) major and minor forest products.

Eighteen forest development corporations have been established in different states/union territories with the objective of undertaking extensive plantation of fast growing and economically important tree

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species as also setting up of forest industries.

The Government of India has launched three schemes for the social forestry scheme, namely, (a) mixed plantation on waste lands and panchayat lands, (b) reafforestation of degraded forests and raising of shelter belts, and (c) rural fuel wood plantations (introduced in 1980-81). Under the latest scheme, 101 districts chronically deficient in fuel wood, have been selected in the country for raising quick growing fuel wood and fodder species near the villages, on waste lands, village common lands, along the sides of roads, canal and railway lines, etc., and free supply of seedlings to farmers for planting in their farms. A Tree for Every Child programme has also been introduced in the country for creating tree consciousness among the children. The states are also undertaking their own massive social forestry programme.

Agro-forestry system, a combination of the forest and agricultural crops, is being used for controlling the menace of shifting cultivation and for regenerating the forests at comparatively low cost. Under the system, cultivators are allowed to use the forest land free of rent for a certain period ranging between 2-3 years for raging plantations of the desired species. Lately in some areas the right to cultivate between the tree lines is auctioned in order to make up for the cost of plantation.

Special emphasis has been laid for the protection of environment in the Himalayan region. A Centrally sponsored scheme of Soil, Water and Tree Conservation in the Himalayas (Operation Soil Watch) is under implementation.

Education, Research and Training

Forestry education in India was started in a small way in 1881. During the last hundred years, the number of forest colleges has increased, their training capacity enhanced and the quality of education improved.

The Forest Research Institute and College at Dehra Dun, with its regional branches and field centres, is the main centre for research in forestry and forest products and for imparting forestry education. Under the administrative control of the Institute, four forest colleges impart training to officers at the superior level. These are : (i) the Indian Forest College (trains Indian Forest Service personnel); (ii) State Forest Service, Burnihat, Assam; (iii) State Forest Service College, Coimbatore; and (iv) State Forest Service College, Dehra Dun. In addition, for training range forest officers, five Forest Rangers Colleges have been established, one each in Chandrapur (Maharashtra), Balaghat (Madhya Pradesh), Dehra Dun (Uttar Pradesh), Coimbatore (Tamil Nadu) and Kurseong (West Bengal). Then there are forest colleges under some state governments.

The Forest Research Institute and Colleges have also been recognised by the Food and Agriculture Organisation as an international centre for the study of forestry in South-East Asia and Pacific Region.

To train Indian forestry personnel in the modern business aspects of forest resources an Institute of Forest Management started working as an autonomous body from October 1982 at Bhopal.

An organisation known as Forest Survey of India (FSI) was set up in June 1981 to assess and to periodically monitor the forest resources of the country. This is a modified body with enlarged objectives of the earlier organisation of Pre-investment Survey of Forest Resources, set up in 1965.

The Council for Forestry Research and Education is a broad-based body to provide working committees to deal various aspects of forestry

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research and education.

Forestry as a subject has also been introduced in a number of universities.

IRRIGATION

The vulnerability of India's agriculture, owing to the vagaries of the monsoon, has made it imperative to accord irrigation a high priority in the national development plans. One thousand and one hundred twenty-seven major and medium projects were taken up between 1951 and 1982 of which 506 have been completed, 17 more are nearing completion and many others have started yielding partial benefits. Besides these, a number of minor irrigation schemes have been completed and many more are in hand.

GROWTH AND UTILISATION OF IRRIGATION POTENTIAL

Prior to 1951, the total area irrigated in the country from all sources was 2.26 crore hectares of which 97 lakh hectares was from major and medium irrigation projects and 1.29 crore hectares from minor irrigation schemes. Cumulative irrigation potential increased to 5.65 crore hectares by the end of 1979-80 of which 2.65 crore hectares were from major and medium irrigation and 3 crore hectares from minor schemes. During 1980-81, an additional potential of 22 lakh hectares has been created bringing the aggregate to 5.87 crore hectares. The irrigation potential of the country has thus increased two and a half times since the advent of planning. The growth of irrigation potential and the corresponding utilisation from major and medium projects since 1951 have been shown in table 14.8.

(lakh hectare)

TABLE 14·8 IRRIGATION POTENTIAL AND UTILISATION

	Pre-Plan	First Plan	Second Plan	Third Plan	Fourth Plan	Fifth Plan	Annual Plans	1982-83	Proposed for Sixth Plan
Potential	97	122	143	165	207	247	265	291	322
Utilisation	97	110	129	152	187	212	223	243	279

MULTIPURPOSE PROJECTS

Some of the major irrigation and multi-purpose projects are as follows :

Nagarjunsagar

The Nagarjunsagar project comprises the construction of a 1,450-metre long masonry dam with 3,414 metre long earthen flanks on the Krishna near Nandikonda village, about 144 km from Hyderabad and two canals, one on each side of the river. The 204-km long right bank canal and the 179-km long left bank canal will together irrigate 8.95 lakh hectares. The dam has been completed. Work on the canals is under way. An irrigation potential of 6.89 lakh hectares out of a total potential of 8.95 lakh hectares had been created by June 1982.

Tungabhadra

A joint project of Andhra Pradesh and Karnataka, the Tungabhadra project comprising a 2,441-metre long and 49.38-metre high dam on the Tungabhadra was completed in 1956. Work on the canals and distribution system has also been largely completed. Out of irriga-

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tion potential of 4.97 lakh hectares, a total irrigation potential of 3.22 lakh hectares had been created by June 1981.

Pochampad

The Pochampad project in Andhra Pradesh envisages construction of an 812-metre long and 43-metre high masonry dam with earthen flanks across the Godavari. There will be a 113-km long right bank canal to irrigate an area of 2.24 lakh hectares. Work on the dam and the canal is in progress. An irrigation potential of 1.88 lakh hectares had been created by June 1982.

Gandak

Bihar and Uttar Pradesh are the participating states in the project. Nepal, under an agreement signed with India in 1959, also derives irrigation and power benefits from it. The irrigation potential of the project is 14.58 lakh hectares.

The 740-metre long barrage and appurtenant works were completed in 1969-70. The main western canal was opened in December 1972. Partial irrigation has commenced from the main eastern canal. The Nepal eastern canal was inaugurated in 1973. The project is to be completed during the Sixth Plan. An irrigation potential of 11.30 lakh hectares had been created by 1981-82 in Bihar and Uttar Pradesh.

Kosi

The multipurpose Kosi project in Bihar envisages irrigation, flood-control and other benefits. An agreement on the project was signed between India and Nepal in 1954 and revised in 1966. The irrigation potential of the project is 4.34 lakh hectares. Flood embankments under the project were completed in 1959.

The barrage near Hanumannagar in Nepal was inaugurated in 1965. The eastern Kosi canal system is practically complete except for the distribution system and drainage.

Four more schemes have been sanctioned under the second stage of the project. They are : a 20 mw power house, the Western Kosi canal, the Rajpur canal and extension of the flood embankments.

The western Kosi canal project provides for the construction of a 112.65-km long main canal taking off on the right bank of the Kosi barrage at Hanumannagar. The first 35.2 km of the main canal lies in Nepal. The project, after completion, will irrigate 3.14 lakh hectares. The Rajpur canal scheme, envisaging construction of a branch canal of the eastern main canal, will irrigate an area of 1.25 lakh hectares. Out of an ultimate irrigation potential of 8.73 lakh hectares potential of 4.87 lakh hectares had been created by 1981-82.

Sone High Level Canal

The Sone High Level Canal project in Bihar has been conceived as an extension of Sone barrage project, which aims at modernisation and extension of the existing irrigation system from Sone. The project when completed will irrigate 1.61 lakh hectares. An irrigation potential of 1.60 lakh hectares (approx.) had been created up to 1981-82.

Kakrapara

The Kakrapara project in Gujarat is the first phase of the development of the Tapi valley. A 621-metre long and 14-metre high weir near Kakrapara in Surat district was completed in 1963. Most of the earthwork on the canals and distributaries has been completed. An irrigation potential of 2.27 lakh hectares which is the ultimate potential of the scheme has already been created.

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Ukai The Ukai multipurpose project in Gujarat consists of a 4,928-metre long and 68.6-metre high dam across Tapi river near Ukai village. The project will irrigate 1.53 lakh hectares and generate 300 mw of power. Ukai dam and power house have been completed. An irrigation potential of 1.53 lakh hectares had been created by 1979-80.

Mahi The Mahi project in Gujarat has two stages. Stage I consists of a 796-metre long and 20.6-metre high masonry pick-up weir across the Mahi river near Wanakbori village. A 74-km long canal takes off on the right side to irrigate a total area of 1.86 lakh hectares. Stage II envisages construction of a 1,430-metre long and 58-metre high compositive dam across the Mahi river near Kadana to irrigate an area of 89,000 hectares in addition to area under Stage I. The work on Kadana is in advanced stage of construction.

By 1979-80, full irrigation potential of 1.86 lakh hectares had been created.

Sabarmati The Sabarmati Reservoir project in Gujarat envisages the construction of (i) storage dam across Sabarmati river near Dhari village in Mahesana district with a system of canals off-taking from the reservoir on both banks; (ii) Wasna barrage near Ahmedabad with a feeder canal therefrom to the existing Fatewadi canals. It will create ultimate irrigation potential of 59,000 hectares. An irrigation potential of 34,500 hectares has been created by June 1982.

Panam The Panam reservoir project in Gujarat consists of a gravity masonry dam across Panam river near Keldezar village in Panchmahals district. It will irrigate 53,000 hectares and will also provide water supply to Bando and industrial areas around Vadodara. An irrigation potential of 20,000 hectares had been created by June 1982.

Karjan The Karjan reservoir project in Gujarat envisages the construction of a masonry dam 885-metre long across Karjan river near Jitgadh village in Nandoo taluka of Bharuch district. The project will irrigate 72,000 hectares. No potential had been created up to June 1982.

Bhadra The Bhadra multipurpose project across the Bhadra river in Karnataka, when completed, will irrigate 1.05 lakh hectares of land and generate 25 mw of power. The Bhadra reservoir and most of the irrigation system under it have been completed.

Upper Krishna The Upper Krishna Project in Karnataka consists of the Narayanpur dam across the Krishna with a canal taking off from the left bank and the construction of a dam at Almatti. The project has started yielding benefits. An irrigation potential of 7,000 hectares had been created by 1978-79. Ultimate potential of the project is 4.25 lakh hectares.

Ghataprabha The Ghataprabha valley development scheme envisages harnessing of the water of Ghataprabha for irrigation in Belgaum and Bijapur districts of Karnataka. It is proposed to be implemented in three stages. Stage I of the project envisaged a masonry weir, 2,085-metre long and 9-metre high across Ghataprabha at Dhupdal, with a left bank canal 71 km long. Stage II envisaged construction of a composite

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dam, 5,275-metre long and 50-metre high at Hidkal and extension of Ghataprabha left bank canal from 71 km to 114 km. Stage II is practically complete. Stage III envisages raising of Hidkal dam and construction of a 197-km long right bank canal taking off from Hidkal dam. Out of the total potential of 3.18 lakh hectares, a potential of 1.47 lakh hectares has already been developed.

Malaprabha

The Malaprabha project, a 154.6-metre long and 44-metre high masonry dam, will be constructed across the Malaprabha in Belgaum district of Karnataka and canal systems taking off from both flanks of the reservoir. The project has an ultimate potential of 2.13 lakh hectares. The dam has been completed. Construction of canals is in progress.

Tawa

The Tawa project envisages the construction of a reservoir across the Tawa river, a tributary of the Narmada, in Hoshangabad district of Madhya Pradesh. The 1,627-metre long dam will be earth-cum-masonry type. On completion, the project will irrigate about 3.33 lakh hectares. The project is in an advanced stage of construction and part benefits have started flowing. A potential of 2.46 lakh hectares have been created till June 1982.

Chambal

The Chambal project is being jointly executed by Madhya Pradesh and Rajasthan. In the first stage, the Gandhi Sagar dam and its 115 mw power station and the Kota barrage were completed. The Rana Pratap Sagar dam with a power house of 172 mw capacity was constructed in the second stage. The third stage comprises the construction of the Jawahar Sagar dam and a 99 mw power station. With the completion of all three stages, the project will generate 386 mw of power. Out of the ultimate irrigation potential of 5.15 lakh hectares, a potential of 4.89 lakh hectares had been created by the end of June 1982.

Mahanadi Reservoir Project

The Mahanadi reservoir project in Madhya Pradesh consists of three phases. Phase I envisages the construction of Ravisankar Sagar Project and feeder canal system for water supply to Bhilai steel plant and Sandur dam across the Sandur river with its canal system. Phase II envisages the extension of Mahanadi feeder canal, distribution up to 40 hectares and lining main canals and distributaries, Abhanpur lift canal system and extension of distributary No. 2 Mahanadi main canal system. Phase I and II are under construction. Out of an irrigation potential of 3.40 lakh hectares an irrigation potential of 47,600 hectares has been created by June 1982. Phase III is a new scheme of Sixth Plan and comprises Pairi dam.

Hasdeo Bango Project

The Hasdeo Bango project in Madhya Pradesh forms phase III of the Hasdeo Bango project complex. Phase I and II have been substantially completed. Phase III envisages the construction of 85-metre high masonry dam across Hasdeo river, about 45 km upstream of existing barrage so as to utilise the stored water of Hasdeo and irrigate 3.28 lakh hectares annually, besides generating power and providing water to super thermal stations and for industrial uses.

Bargi Project

The Bargi project in Madhya Pradesh consists of (i) the construction of a masonry dam across the Bargi river in the Jabalpur district and (ii) the construction of 135 km left bank canal. This is a multi-

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purpose project to provide irrigation, hydro power and water supply for Jabalpur. On completion, it will irrigate 2.45 lakh hectares. No potential has been created so far.

Bhima

The Bhima project envisages construction of two dams, one on the Pawana river near Phagne in Pune district and the other across the Krishna near Ujjaini in Sholapur district. The Pawana dam will be 1,319-metre long and 42-metre high. The Ujjaini dam will be 2,467-metre long and 56.4-metre high. Work on Pawana component of the project is complete. Ujjaini dam is nearing completion. The 139-km long main canal will take off from the left bank. The project will have an irrigation potential of 1.62 lakh hectares. A potential of 44,360 hectares has been created by June 1982.

Jayakwadi

The Jayakwadi project envisages the construction of a 37-metre high earthen dam with a masonry spillway across Godavari in Maharashtra in the first stage. A 240-km long canal will take off from the left side to irrigate an area of 1.42 lakh hectares. The second stage of the project envisages construction of a 133-km canal on the right side, a 30.5-metre high and 6,090-metre long dam across Sindphana river at Majalgaon and a right bank canal from Majalgaon dam. Another 1.36 lakh hectares will be irrigated when stage II is completed.

Out of an ultimate potential of 2.78 lakh hectares a potential of 1,38,900 hectares was created by the end of June 1982.

Kukadi Project

The Kukadi project in Maharashtra comprises five independent storage dams, *viz.*, Yodgaon, Manikdohi, Dimbha, Wadaj, and Pimpalgaon Jog. The canal system comprises the following : (i) Kukadi left bank canal 253 km, Dimbha left bank canal 55 km, Dimbha right bank canal 72 km, Meena feeder 14 km, Neena Branch 40 km. Out of total irrigation potential of 1.56 lakh hectares, an irrigation potential of 21,500 hectares had been created by June 1982.

Krishna Project

The Krishna project in Maharashtra comprises Dhom dam near Dhom village on Krishna and Kanhar dam near Kanhar village on Vanna river in Satara district. It will irrigate 1.12 lakh hectares and irrigation potential of 50,000 hectares had been created by the end of June 1982.

Upper Penganga

The Upper Penganga project in Maharashtra envisages the construction of two reservoirs on Penganga river at Isapur in Yavatmal district and the other on Rayadhu river at Sapli in Parbhani district. The total length of the canals is 366-km. The project will irrigate 1.15 lakh hectares. No potential has been created so far.

Hirakud

The 4,801.2-metre long main Hirakud dam in Orissa, the world's longest, impounds 810 crore cubic metres of the Mahanadi waters. The project irrigates an area of 2.51 lakh hectares. Its present installed power generation capacity is 270.2 mw.

Mahanadi Delta Scheme

The Mahanadi delta irrigation scheme is being executed to make use of the releases from the Hirakud reservoir. An irrigation potential of 5.49 lakh hectares has been created by June 1982.

Rajasthan Canal

The Rajasthan Canal Project will provide irrigation facilities to the north-western region of Rajasthan which is a part of the Thar desert.

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The project, which will use waters from Pong dam, consists of the 204-km long Rajasthan feeder canal (with the first 167 km in Punjab and Haryana and the remaining 37 km in Rajasthan) and the 445 km long Rajasthan main canal lying entirely in Rajasthan.

The first stage of the project consists of the construction of the feeder canal in full and 180 km of the main canal and 3,000-km long distribution system. The feeder and the main canal have been completed.

The second stage covers the construction of the remaining 256 km of the main canal and the 3,500-km long distribution system. The work on stage II has also been started and is scheduled to be completed by 1985-86. The project will ultimately irrigate about 12.58 lakh hectares. An area of 5.6 lakh hectares has been brought under irrigation command by 1982 of which 4.02 lakh hectares had actually been irrigated by June 1982.

Parambikulam Aliyar

This joint venture of Tamil Nadu and Kerala envisages the integrated harnessing of eight rivers, six in the Annamalai Hills and two in the plains. The scheme will irrigate about 1.01 lakh hectares and also have an installed power generating capacity of 185 mw. A potential of 94,740 hectares had been created by June 1982.

Improvement of Periyar Vaigai System

This project of Tamil Nadu envisages : (i) construction of a pick-up weir; (ii) construction of lined link canal; and (iii) lining of main canals, branches and distributaries of supply channels and tanks. The pick-up anicut has been completed. Tirumanglam main canal branch distributary has been completely lined. Other lining is in progress. The ultimate potential of the scheme is 10,310 hectares. No potential has been created so far.

Sarda Sahayak

The Sarda Sahayak project envisages construction of (i) a 1,003-metre long barrage across Ghagra river, (ii) a link channel of 28-km length, (iii) a 811-metre long barrage across the Sarda river, (iv) a feeder channel of 260-km length involving construction of two major aqueducts over Gomti and Sai rivers and (v) remodelling of 6,450 km of distribution system and construction of 2,570 km of new channels. The works are being executed in five stages. Stage I and II have been practically completed and commissioned.

Out of an ultimate irrigation potential of 15.82 lakh hectares, 14.56 lakh hectares potential has been created by the end of 1981-82.

Ramganga

The Ramganga, a major tributary of the Ganga in Uttar Pradesh, is being tamed with a 625-metre long and 127.5-metre high earth and rock-fill dam and a 72 metre high saddle dam in the Garhwal district. The project will irrigate 5.91 lakh hectares, have an installed power capacity of 198 mw, supply 200 cusecs of water for the Delhi water supply scheme and reduce the intensity of floods in central and western Uttar Pradesh. The dam was completed in June 1974. Full irrigation potential of 5.91 lakh hectares had been created by the end of 1979-80.

Left Bank Ghagra Canal

The Left Bank Ghagra Canal project envisages the construction of a link channel of 360 cusecs capacity which will take off from the left bank of river Ghagra of Girja barrage and will join Sarju river. A barrage will also be constructed across Sarju from where Sarju main canal with 360 cusecs capacity will take off. Nearly 75 per cent work

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of Sarju main canal has been completed together with 20 per cent work of Utraula and Domaria gang pump canals till 1981-82. The project potential is 14 lakh hectares.

Tehri Dam

The Tehri Dam project of Uttar Pradesh envisages construction of 260.5-metre high earth and rock-fill dam on Bhagirathi river in Tehri district of Uttar Pradesh. The total irrigation potential of the project is 6.7 lakh hectares.

Madhya Ganga Canal

The Madhya Ganga Canal project of Uttar Pradesh envisages the construction of a barrage across Ganga in Bijnor district and a 115-km long main canal taking off on the right bank for supplementing the discharge of Upper Ganga Canal and its branches. The work is in progress. The ultimate potential of the scheme is 1,78,000 hectares.

Farakka

The Farakka project in West Bengal was taken up for the preservation and maintenance of Calcutta port and for improving the navigability of the Hooghly. It consists of a barrage at Jangipur across the Bhagirathi, a 39-km long feeder canal, taking off from the right bank of the Ganga at Farakka and falling into the Bhagirathi below the Jangipur barrage and a road-cum-rail bridge over the Farakka barrage.

Construction work was started in 1963-64; the two barrages and the road-cum-rail bridge have been completed. Following the Indo-Bangladesh agreement of 18 April 1975, the scheme was commissioned on 21 April 1975. Work on the navigation structures is in progress.

Mayurakshi

The Mayurakshi project in West Bengal comprises the Canada dam, 640-metre long and 47.24-metre high, and irrigates about 2.51 lakh hectares of land. The hydro-electric plant produces four megawatt of power. The project is partially complete.

Kangsabati

The Kangsabati project in West Bengal envisages the construction of earthen dams, connected together by intermediate dykes, on the Kangsabati and Kumari rivers. Its canal system would cross the Silabati, Bhairoh Banki and Terafeni rivers, on which three pick-up barrages will be constructed. The project will benefit an area of 4.02 lakh hectares. A potential of about 3.68 lakh hectares had been created by 1980-81.

Damodar Valley Project

The Damodar Valley project was conceived for the unified development of irrigation, flood control and power generation in West Bengal and Bihar. The project is administered by the Damodar Valley Corporation (DVC), established in 1948. The DVC has completed multi-purpose dams and hydel power stations at Tilaiya, Konar, Maithon and Panchet, a 672-metre long and 11.58-metre high barrage at Durgapur, 2,495 km of irrigation canals and three thermal power houses at Bokaro, Chandrapura and Durgapur. The irrigation potential of the project is about 5.15 lakh hectares and its installed power generating capacity is 1,181 mw, made up of 1,077 mw of thermal and 104 mw of hydel power. A potential of 4.75 lakh hectares had been created by 1981-82.

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FLOOD CONTROL

After the extremely severe floods experienced in 1954, it was considered that efforts in the field of flood control need to be intensified on the basis of a well planned programme. Accordingly, the National Flood Control Programme was launched in 1954. The programme was divided into three phases—immediate, short-term and long-term. The immediate phase was devoted to intensive collection of data and execution of emergent flood protection measures. The short-term programme which was roughly to coincide with the Second Plan, envisaged the construction of embankments, protection of some towns, raising of villages, etc. The long-term phase envisaged the construction of storage reservoirs, stablising benefits of the works already carried out as well as taking up of additional works of embankments, river draining, etc.

Flood Control Bodies

At the state level, a technical advisory committee examines the proposals approved by the state flood control board, which also lays down policies at the state level. At the national level, major schemes are examined in detail by the Central Water Commission, Ganga Flood Control Commission and then approved by the Planning Commission. Appreciating the magnitude and complexity of the flood problem of Brahmaputra valley, the Brahmaputra Board was set up by the Central Government on 31 December 1981. The important functions of the Board include surveys and investigations in the Brahmaputra Valley, to prepare a master plan to control floods, bank erosion, and improvement of drainage keeping regard for the development of the water resources of Brahmaputra basin for irrigation, hydro-power, navigation and other beneficial purposes.

Flood Control Works

Since the commencement of the National Flood Control Programme in 1954, nearly 12,652 km of embankments, 25,085 km of drainage channels, 313 town protection works/schemes and raising of level of about 4,700 villages have been completed by March 1982. In addition, anti-erosion measures to protect the coastline, especially in Kerala, was also taken up. Out of 320 km of the vulnerable coastline, 268 km have so far been protected up to March 1982. These works were carried out at a cost of about Rs 1,298 crore and afforded reasonable protection to an area of 120.78 lakh hectares. In addition, a number of reservoir projects have been completed which have helped to mitigate the flood damage in the river channels downstream. Notable among these are Hirakud dam on Mahanadi; Konar, Maithon, Panchet and Tilaiya dams on Damodar; Bhakra on Sutlej, Pong on Beas and Ukai on Tapi.

Flood Forecasting

Government has also set up a flood forecasting organisation to issue advance warnings about impending floods so as to alert the agencies concerned with rescue and relief to organise themselves and also to put into action the flood fighting and maintenance organisations to gear up to the emergency. The Central Flood Forecasting and Hydrological Observation Organisation with headquarters at Patna and Hyderabad has five circles at Guwahati, Maithon, Hyderabad and Delhi with divisions at Dibrugarh, Guwahati, Jalpaiguri, Behrampur, Asansol, Patna, Varanasi, Lucknow, Jhansi, Bhubaneswar, Hyderabad, Delhi Gandhinagar, Surat and Bangalore. The warnings issued by the control rooms under these divisions have been found to be extremely useful to the public. So also the hydrological observations conducted on

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scientific lines are extremely useful in planning of water resources projects.

Flood Situation

For the Sixth Plan, the outlay proposed for flood control sector is Rs 1,045.10 crore as compared to Rs 976 crore as spent during the earlier Plans up to March 1980. The expenditure during 1980-81 was Rs 156.64 crore and during 1981-82, Rs 164.90 crore. The anticipated expenditure during 1982-83 is Rs 170.40 crore.

During 1982, there were heavy floods in Orissa, Assam, Uttar Pradesh and Bihar. Floods of various magnitude were also experienced in Andhra Pradesh, Gujarat, Karnataka, Kerala, Manipur and Tripura. Mahanadi basin in Orissa had to bear the brunt of cyclone in June 1982 causing extensive damages in Puri, Cuttack and Balasore districts and again unprecedented rainfall in August 1982 caused severe damage to irrigaton and flood control works in the Mahanadi basin. Floods in Uttar Pradesh affected about 43 districts. Three flood waves in Brahmaputra valley caused over-tapping and breaches in the embankment system disrupting communications and inundation of a number of villages. The total damage due to floods reported during 1982 in the country was about Rs 1,410 crore affecting an area of 258.8 lakh hectares and a population of 4.73 crore. One thousand three hundred and twenty one human lives were lost during floods.

CENTRAL ORGANISATIONS

There are eight central organisations, which are responsible for planning, development and research in the field of irrigation.

The Central Water Commission is responsible for initiating and coordinating, in consultation with state governments, schemes for control, conservation and utilization of water resources for purposes of irrigation, navigation and flood control throughout the country.

The Central Board of Irrigation and Power, constituted in 1927, initiates fundamental research in the fields of irrigation and power and coordinates the work of research stations, established in different parts of the country. The Board also disseminates the results of the studies and information on irrigation and power development, both inside the country as well as abroad.

The Central Water and Power Research Station at Khadakvasla near Pune is the premier research station in south-east Asia dealing with a variety of subjects in the field of water resources development. The research station set up in 1916 has achieved a high degree of specialisation in a number of disciplines. It has also been recognised as the regional laboratory for the Economic and Social Commission for Asia and the Pacific (ESCAP).

The Central Soil and Materials Research Station, New Delhi, established in 1954, deals exclusively with problems falling in the field of geomechanics and construction materials.

The National Institute of Hydrology, Roorkee, set up in December 1978 as a registered society, is designed to undertake, promote and coordinate systematic and scientific studies in theoretical and applied hydrology so as to improve the existing system of planning, design and operation of water resources projects.

The National Water Development Agency (NWDA) has been set up to initiate investigation relating to the peninsular component of the national perspective for water resources development in the country for

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creation of optimum storage facilities along various rivers and transferring the surplus flows for utilisation in deficit regions by constructing inter-connecting links. The perspective plan comprises two main components *i.e.*, Himalayan river development and peninsular river development. The NWDA is a registered society and is responsible for initiating investigations and surveys in nominated areas.

Two more organisations, the Minor Irrigation Division including Central Ground Water Board and the Command Area Development Divisions were transferred to the Ministry of Irrigation from the Ministry of Agriculture in July 1980. The Minor Irrigation Division reviews and coordinates planning and programming of minor irrigation schemes which includes all ground water development and those surface water minor irrigation schemes (both flow and lift) which have a culturable command area less than 2,000 hectares in the states. It sponsores schemes with 50 per cent matching central assistance for specified purposes/programmes. The Central Ground Water Board, a subordinate office of the Ministry of Irrigation, is an apex body at the national level, charged with the work of ground water survey and exploration at micro level in the country. It has got regional offices and field staff in various states covering whole of the country.

The concept of command area development was borne in the beginning of Fifth Plan, when it was realised that a multi-disciplinary organisation is required both at the Centre and the states to coordinate the work of construction of field channels, field drains, land levelling and shaping, etc., and provision of other infrastructure facilities like command area roads, marketing facilities for the produce, credit facilities, fertilizer and seed inputs, etc. The work of the Command Area Development is executed through the states as a Centrally sponsored programme.

Water and Power Consultancy Services

The Water and Power Consultancy Services (India) Ltd. (WAPCOS) was set up in 1969 by the Central Government to share the experience and expertise built up in the country over a long period with other developing nations. The Company provides comprehensive inter-disciplinary services for the planning and development of irrigation, drainage, flood control and river training works, irrigated agriculture, land reclamation, water supply and sanitation, generation, transmission and distribution of hydro and thermal power, resettlement of transmigrants, etc.

The countries where WAPCOS rendered and/or is rendering consultancy services include Afghanistan, Bhutan, Burma, Fiji Islands, Indonesia, Iraq, Kampuchea, Laos, Malaysia, Mauritius, Nepal, Nigeria, Philippines, Republic of Korea, Singapore, Sri Lanka, Tanzania, Vietnam and Zimbabwe.

WAPCOS is registered with several international agencies and is engaged in providing consultancy services for projects aided/assisted by some of these organisations. In India, WAPCOS is engaged in joint project preparation and appraisal for some major irrigation projects aided by World Bank and Food and Agriculture Organisation.

The turn-over of the Company for 1981-82 was Rs 340.68 lakh, and for the last seven years, it has been paying dividend at the rate of 40 per cent.

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INTERNATIONAL AGREEMENTS

Indus Commission

India and Pakistan signed the Indus Water Treaty on 19 September 1960, fixing and delimiting the rights and obligations of the two countries with regard to the use of the waters of the Indus river system. It came into force with effect from 1 April 1960. As envisaged in the treaty, a permanent Indus Commission, representing both the governments, has been set up to establish cooperative arrangements for the implementation of the treaty.

Indo Bangladesh Understanding

During the visit of Lt.-General Ershad, President of the Council of Ministers, Government of Bangladesh and his meeting with the Indian Prime Minister, in October 1982, the two leaders discussed the experience of the working of the 1977 Farakka Agreement which was to expire on 4 November 1982. As a result of these deliberations, a Memorandum of Understanding was signed on 7 October 1982.

In the Memorandum, the two leaders recognised that the basic problem of inadequate flow in the Ganga available at Farakka imposed sacrifices on both countries and that it was necessary to arrive at an equitable sharing of the waters available at Farakka. They further agreed that the long-term solution lay in augmenting available flows, and to this end directed their experts concerned to expedite studies of the economic and technical feasibility of the schemes which had been proposed by either side, in order to settle upon the optimum solution for urgent implementation. It was further decided that the Joint Rivers Commission would complete the pre-feasibility study and decide upon the optimum solution within a period of 18 months of the signing of the Memorandum, at the end of which the two Governments would immediately implement the augmentation proposal agreed upon by the Joint Rivers Commission. Meanwhile, it was agreed to share the flows available at Farakka for the next two dry seasons as per details agreed upon and incorporated as an annexure to the Memorandum of Understanding.

The Indo-Bangladesh Joint Rivers Commission started functioning in June 1972 with the principal objective of maintaining liaison between India and Bangladesh so as to ensure the most effective joint efforts in maximising the benefits from common river systems to both the countries and for formulating measures for mutual benefit in the fields of flood forecasting and warning, flood control, etc.

Cooperation with USSR

A contract was signed between the Government of Gujarat and the Government of USSR on the 3 December 1981, for preparation of a feasibility report for setting up of an enterprise for production of prefabricated components for construction of canal structures and canal linings in Gujarat. A team of five Soviet experts visited India in 1982, and has submitted the feasibility report for the project.

A contract was signed on 31 December 1981 between the Central Water Commission and the Government of USSR for preparation of a pre-feasibility report for construction of an experimental dam and canal by using directional blasting technique in Himachal Pradesh. A team of five Soviet experts visited India during February–April 1982 and submitted a preliminary report.

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15 RURAL DEVELOPMENT

Development of the rural areas has been one of the paramount concerns of the successive five year plans. Under the Community Development Programme launched in the early 50's, a net-work of basic extension and development services was established in the villages. The programme helped in creating awareness in the rural communities of the potential means of development which made quicker adoption of major technological advances in agriculture possible, later in the mid 60's. Reinforced with abolition of intermediary landlords and reform of land tenure system, the investments in the successive five year plans have led to the creation of essential physical and institutional infrastructure of socio-economic development in many rural areas.

Later, realising that the benefits of various development programmes were being mostly taken away by those better endowed in terms of land resources, programmes specifically designed for the development of small and marginal farmers and the landless and agricultural labourers were taken up in the early 70's. A special programme for the development of drought prone areas was introduced in the mid 70's and a programme of development of desert areas in the late 70's. Food for Work programme was started in 1977 to provide opportunities of work for the rural poor particularly in slack employment periods of the year which would at the same time create durable community assets. With a view to removing regional disparities, particularly in less endowed or disadvantaged areas like the hill and tribal areas, special sub-plans of development were introduced. A Minimum Needs Programme was designed to secure to the rural areas within a reasonable time frame certain basic amenities in the field of education, health, drinking water, electrification, roads and house-sites. Special financial concessions, credit on softer terms and subsidies have also been made available to underdeveloped areas to attract increased agro-industrial investment.

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INTEGRATED RURAL DEVELOPMENT PROGRAMME

A number of programmes like the Small Farmers' Development Agency (SFDA), the Drought Prone Areas Programme (DPAP) and the Command Area Development Authority (CADA) have been operating in the country—some for as much as the last ten years and the others introduced recently—aimed at improving the economic conditions of the rural poor. None of these programmes covered the whole country though a large number of blocks in the country had more than one of these programmes operating simultaneously in the same area for the same target group. This territorial overlap combined with the different funding patterns of these programmes, not only created considerable difficulties in effective monitoring and accounting, it often blurred the programme objectives. Though these special programmes did bring about considerable improvement in the living conditions of the poorer people, it became clear that the dimensions of rural poverty in India were such that a far more ambitious programme was required to remove the more degrading forms of rural poverty.

With the objective of raising the poorest families in the rural areas above the poverty line by giving them income generating assets and access to credit and other inputs, a new programme known as the Integrated Rural Development Programme (IRDP) was launched in 1978-79. This programme aims at reduction of unemployment in the rural areas and provision of assets and inputs to the rural poor for enabling them to rise above the poverty line on a lasting basis. This programme is now a component of the Revised 20-Point Programme announced by the Prime Minister in January 1982.

Objectives

The IRDP is aimed at a target group consisting of the poorest among the poor. The target group includes small and marginal farmers, agricultural and non-agricultural labourers, rural artisans and craftsmen, scheduled castes and scheduled tribes and in fact all persons who live below the poverty line (families of about 5 persons with an annual income level below Rs 3,500). Of the 32 crore people below the poverty line in the country, about 26 crore are in the rural areas. The benefits under this programme are to flow exclusively to this target group. The primary objective of this programme is to raise the incomes of the families of the rural poor so that they go above the poverty line. A significant increase in the income of these families is to be brought about through generating opportunities of employment for them and also by giving them productive assets and resources. The twin objectives of raising incomes and generating employment are to be achieved through investment in agriculture and ancillary occupations, cottage and small-scale industries and in practically any viable economic activity which suits the beneficiary family. Under IRDP, there is no pre-determined sectoral allocation and the investments made in various economic activities are to be governed by the interest shown by the beneficiary in the activity and its acceptability to the banking institutions. Agriculture, animal husbandry, fisheries, forestry, rural and cottage industries are some of the eligible items for assistance under the programme.

Coverage

The IRDP was initially taken up in 2,300 blocks in the country. The programme was being extended every year to 300 new blocks. Recognising that rural poverty and unemployment were widespread, a

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major policy decision was taken to extend the benefits of the programme to the target group families in all the 5,011 development blocks from 2 October 1980. The Small Farmers' Development Agency (SFDA) programme which was under implementation in selected areas was merged with IRDP on 2 October 1980.

Financial Allocation

Along with the extension of IRDP to all the blocks in the country, the financial allocation under the programme has also been rationalised. Earlier, different blocks had different financial allocations, ranging from Rs 2 lakh to Rs 10 lakh per block. From 1980-81 onwards, all the blocks are being provided with a uniform allocation of Rs 35 lakh per block during the Sixth Plan. The allocation is to be shared between the Centre and the states on 50:50 basis.

During the Sixth Plan period, assistance under this programme is to be given to 150 lakh families. On an average, at least, 3,000 families would be directly assisted under this programme in each block over a five-year period. The Sixth Plan outlay for IRDP is Rs 1,500 crore, shared equally by the Centre and the state. Credit to the tune of Rs 3,000 crore is also to be mobilized. Thus the total investment on this programme in the Sixth Plan will be about Rs 4,500 crore, making it one of the largest programmes in the Sixth Plan.

Financial Assistance

IRDP offers assistance for financing a large variety of economic activities. The programme envisages the identification of beneficiaries on the basis of objective criteria and the identification is to be done on the basis of proper inquiry by the implementing agencies. Presently, the objective is to cover at least 600 families in each block in a year. Of these approximately 400 families would benefit through agriculture and related activities. About 100 families would be covered through village and cottage industries and another 100 families would be assisted in the services sector in a year. This proportion would vary from area to area on the basis of the actual conditions obtaining in each area. After identifying each individual household, appropriate economic activities would be identified in consultation with the beneficiary concerned and suitable bankable schemes would be drawn up. The capacity of the beneficiary to take risks, his existing resource base and his managerial ability are to be considered before schemes are drawn up. The programme is financed partly by subsidy and partly by bank loans. Nearly 2/3rds of the resources required for implementing the programme have to come from the cooperative and commercial banks. Since most of the target group families are not in a position to offer security cover for loans to be advanced by the banks, the banking institutions have to adopt a very positive attitude if the scheme is to be a success.

Implementation

The authority to sanction schemes under IRDP has been delegated to the state governments. The block level plans are approved by a state level coordination committee. The coordination committee meets periodically to review the implementation of the programme in the states and offer necessary directions for accelerating the programme.

The implementation of the programme in the field is being done through the district level rural development agencies and block agencies. The national policy is to have one rural development agency, a society registered under the Societies Registration Act on the SFDA pattern, in every district. Wherever such agencies exist, the implementation

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of the programme has been entrusted to these agencies. In the districts where such agencies do not exist, the state governments have been advised to set up new district level agencies. The state governments have been requested to entrust the implementation of other rural development programmes like the National Rural Employment Programme, also to the same district level agency implementing the IRDP. Since the programme envisages preparation of a comprehensive plan for every block, a three-member planning team at the district level comprising an economist/statistician, a credit planning officer and a small and cottage industry officer, is to be set up as a part of the district rural development agency. District Rural Development Agencies (DRDA) on these lines have been set up in almost all districts and they are fully operational now.

Performance and Prospects

The IRDP gathered substantial momentum during the last two years. Against the annual target of covering 30 lakh families, the actual coverage of families was 27.83 lakh in 1980-81 and 28.29 lakh in 1981-82. In 1980-81, the subsidy for the average beneficiary was Rs 561 and credit Rs 850. In 1981-82, the subsidy level for the average beneficiary rose to Rs 928 and credit to Rs 1,713.

Studies taken up for a thorough verification of assets distributed to the beneficiaries and to assess the impact on them have established that the programme is moving in the right direction in spite of several organisational and administrative inadequacies. Efforts are being made to remove these constraints and impediments and to accelerate the pace of implementation.

SPECIAL LIVESTOCK PRODUCTION PROGRAMME

The Special Livestock Production Programme (SLPP) initiated in 1975-76, aims at providing employment opportunities to the weaker section of the rural population. This programme continues to be in operation in 21 states and 4 union territories.

The programme is being implemented by the states on a subsidy-cum-loan basis. The loans are arranged through institutional sources. The scheme for cross-bred calf rearing provides feed subsidy at the rate of 50 per cent to small and marginal farmers and 66-2/3 per cent to agricultural labourers. The element of subsidy is given to the identified beneficiaries towards the cost of feeding the cross-bred heifer from 4 to 32 months, insurance and health cover. Under the scheme for the establishment of poultry, piggery and sheep production units, subsidy is given at the rate of 25 per cent to small farmers and 33-1/3 per cent to marginal farmers and agricultural labourers and 50 per cent in case of tribal participants.

The expenditure under this programme is being shared between the Central and state governments on 50 : 50 basis, while it is fully met by the Central Government in respect of union territories.

It has been decided that SLPP will continue as a separate scheme during the remaining period of the Sixth Plan. Outlay required for this programme will be met out of the overall provision made for IRDP. It has been decided that provision of subsidy for this programme will be over and above the per block subsidy under IRDP.

DROUGHT PRONE AREAS PROGRAMME

Drought has been a recurring phenomenon in several parts of the country. The areas frequently affected by drought are poorly endowed with natural resources and their economy is more or less stagnant. While scarcity relief measures have had to be taken from time to time

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in many other areas, their need in drought prone areas has been more keenly felt. The Drought Prone Areas Programme (DPAP) seeks to restore ecological balance and reduce the severity of drought in these areas by raising the productivity of their land, water, livestock and human resources. It is thus qualitatively different from scarcity relief measures which are in the nature of fire fighting operation.

The drought prone areas for this programme have been identified on the basis of factors such as high frequency of drought, low and/or erratic distribution of rainfall, small coverage of assured irrigation, etc. Since 1982-83, the DPAP is in operation in 510 blocks of 70 districts in 13 states. The expenditure is shared equally by the Central Government and state governments. The outlay for the programme in the Sixth Plan is Rs 350 crore.

So far Rs 565 crore have been spent on the programme since its inception. The main works under the programme are for soil and moisture conservation, irrigation, crop husbandry, dairy, cattle and sheep development, forestry and pasture, sericulture, fisheries and horticulture. Dairy development, irrigation, dry farming, sericulture, fisheries, etc., have already created a perceptible impact upon the income and employment situation. The effect of afforestation, horticulture, etc., is likely to be felt over the next few years through restoration of ecological balance and larger income and employment.

More than 24 lakh hectares have so far been treated to soil and moisture conservation measures. Irrigation potential has been created for 5.5 lakh hectares and 8.5 lakh hectares have been brought under plants or improved pastures. Besides, the programme has also created employment for 4,480 lakh mandays. Improved farm practices have been adopted over 2.3 lakh hectares, 2.6 lakh calves have been cross-bred and 4.8 lakh upgraded/cross bred progeney or sheep has been produced.

DESERT DEVELOPMENT PROGRAMME

The Desert Development Programme (DDP) was started in 1977-78 as a central sector scheme with the objective of controlling desertification and promoting opportunities for raising the level of production, income and employment in areas covered under the programme. The major areas of action : (i) afforestation (with special emphasis on shelter belt plantation), grassland development and sand stabilisation; (ii) ground water development and utilisation; (iii) construction of water harvesting structures; (iv) development of agriculture, horticulture, animal husbandry; and (v) rural electrification for energising tubewells/pump sets, etc.

The programme covers both hot and cold desert areas of the country. The hot deserts were included on the recommendations of the National Commission on Agriculture (NCA). The cold arid areas of Ladakh (Jammu and Kashmir) as well as the Lahaul and Spiti Valley (Himachal Pradesh) were also included in the programme.

Initially 132 blocks in 21 districts of 5 states were covered under the programme. There has been some change in coverage since. Four blocks of the Kargil district (Jammu and Kashmir) and three blocks of the Kutch district (Gujarat) have been excluded from the programme and the Pooh sub-division of the Kinnaur district has been included in it.

Initially the programme used to be financed entirely by the Central Government. Now it is being shared equally by the Central and the state governments. Prior to 1982-83, allocation of funds used to be

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made on the basis of the number of blocks involved in each district. From 1981-82 it is related to the severity and expanse of desert conditions. Till December 1982 nearly Rs 60 crore had been spent under the programme.

The major accent of the DDP is on the control of further desertification by taking up fuel and fodder plantation as well as shelter belt and sand dune stabilisation programmes. About 37,000 hectares of land have been afforestated. Sand dune stabilisation measures have been taken up in over 7,200 hectares. Shelter belt plantations have been raised over 21,000 hectares. Cattle and sheep development has also made some impact. Employment of about 70 lakh mandays has been created during this period.

NATIONAL RURAL EMPLOYMENT PROGRAMME

The problem of employment in rural areas is mainly of seasonal unemployment and under employment. Fuller employment opportunities for the rural work force have to be found within the agricultural and allied sectors, through intensification and diversification of agriculture based on expansion of irrigation and improved technology. However, the very dimensions of the problem call for a multi-pronged strategy which aims, on the one hand, at resource development of vulnerable sections of the population, and, on the other, provides supplementary employment opportunities to the rural poor, particularly during lean periods, in a manner which would at the same time contribute directly to the creation of durable assets for the community.

The Sixth Plan document estimates that the percentage of population below the poverty line in the rural areas would be reduced to 30 per cent by the end of 1984-85 from nearly 50 per cent in the beginning of the Sixth Plan period through various schemes of rural development. A substantial reduction in poverty is possible only if there is a determind effort for distribution of income and consumption in favour of poorer sections of the population. For this purpose, it is necessary that employment opportunities in the rural areas are significantly increased. The National Rural Employment Programme (NREP) which replaced the Food for Work Programme from October 1980, aims at achieving this objective.

Till 31 March 1981, the NREP was entirely funded by the Central Government. From 1 April 1981 the programme became a regular part of the Sixth Plan. It is now being implemented as a Centrally sponsored scheme on 50 : 50 sharing basis between the Centre and the states. A total provision of Rs 1,620 crore has been made for the programme in the Sixth Plan. The programme, included under the Revised 20-Point Programme, has three basic objectives; namely (i) generation of additional gainful employment for the unemployed and under-employed persons both men and women in the rural areas; (ii) creation of durable community assets for strengthening rural infrastructure, which will lead to rapid growth of rural economy and steady rise in the income levels of the rural poor; and (iii) improvement of the nutritional status and the living standards of the rural poor.

Payment for Work

The allocation of resources to the states/union territories is made on the basis of a formula giving 75 per cent weightage to the number of agricultural labourers and marginal farmers and 25 per cent weightage to the incidence of poverty in each state. Payment of wages in foodgrains has now been restricted to one kg per day per head and the balance wage is paid in cash. The ratio between the material compo-

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nent and wage component has been fixed at 40 : 60 which is applicable to district as a whole and not to individual works. Ten per cent of the resources have been earmarked for utilisation on programmes of direct benefit to scheduled castes and scheduled tribes. Like-wise 10 per cent allocation has been earmarked for utilisation exclusively for social forestry and plantation programmes.

Between 1977-78 to 1982-83 following community assets in the rural areas were created under the programme which had made visible impact on the quality of life in the villages all-over the country :

1.	Area covered under afforesation/social forestry works	4,74,345 (hectares)
2.	Drinking water well, community irrigation wells, group housing, etc. . . .	1,08,445 (numbers)
3.	Construction of village tanks . . .	18,821 (numbers)
4.	Area benefited through minor irrigation, flood protection, intermediate main drains, field channels, etc. . . .	22,38,835 (hectares)
5.	Construction of rural roads . . .	7,92,248 (kilometres)
6.	Area benefited through soil and water conservation and land reclamation . .	13,18,432 (hectares)
7.	School/*balwadi*/panchyat ghars/community centres, etc.	1,35,235 (numbers)
8.	Other works	3,24,408 (numbers)

INDUSTRIES, SERVICES AND BUSINESS COMPONENT OF IRDP

The Industries, Services and Business Component (ISB) was built into the IRDP in February 1979 with the objective of maximising the employment opportunities in the secondary and tertiary sectors as the absorption capacity of the farm sector had almost reached a saturation point.

All persons selected under ISB are entitled to subsidies as per the IRD pattern. The maximum limit of subsidy is Rs 3,000.

With effect from 2 October 1980 the IRDP has been extended to cover all the blocks in the country. The overall target of coverage is 600 families, belonging to the group of small and marginal farmers, agricultural labourers and rural artisans, who are below the poverty line. Out of these, 200 families are to be taken up under the ISB. On a rough estimate, about 10 lakh families will have to be covered under the component every year.

TRAINING FOR SELF EMPLOYMENT

The National Scheme of Training of Rural Youth for Self-Employment (TRYSEM) was initiated in August 1979 with the principal objective of removal of unemployment among youth. The main thrust of the scheme is on equipping rural youth with necessary skills and technology to enable them to take up self-employment. It is proposed to train about 2 lakh rural youth every year in various skills.

The strategy for training includes, apart from institutional training, training through local servicing and industrial units, master-craftsmen, artisans and skilled workers. During the period of training, the trainees are also given financial assistance. They are also helped to prepare project reports which are converted into bankable schemes. They are helped to apply for bank loans and subsidies. Subsidies on the IRDP pattern with a maximum limit of Rs 3,000 per trainee is given in all areas excepting in DPAP areas where it is Rs 4,000. For tribal beneficiaries it is Rs 5,000. The

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trainees are also entitled in suitable cases, to a free tool-kit costing upto Rs 250.

RESEARCH AND TRAINING

The importance of training for rural development is being increasingly recognised. A major training programme has been launched not only for acquainting government functionaries with the details of the rural development schemes but also to train the beneficiaries so that they develop as good acceptors of the delivery system.

National Institute of Rural Development

The National Institute of Rural Development, Hyderabad, is an autonomous organisation engaged in conducting research and training programmes on all aspects of rural development. Training programmes meet on-the-job requirements of functionaries involved in the rural development process. The research studies are action-oriented so that they can constitute a vital input for the training programme. The Institute has been declared as the national IRD centre of the Centre for Integrated Rural Development for Asia and the Pacific (CIRDAP), Comilla, Bangladesh.

Rural Technology

A Council for Advancement of Rural Technology (CART) is in the process of being set up on the pattern of the Indian Council of Agricultural Research (ICAR). It has been registered under Societies Registraion Act, 1860. Among other things, CART will act as the national nodal point for coordination of all efforts at development and dissemination of rural technology for all sectors.

INSTITUTIONAL CREDIT

The Credit Division of the Ministry of Rural Development liaise with the Ministry of Finance (Banking Division), the Reserve Bank of India and the National Bank for Agriculture and Rural Development (NABARD), to promote adequate and timely flow of credit for the implementation of the IRDP.

The requirement of institutional credit for IRDP during the Sixth Plan has been assessed at approximately Rs 3,000 crore. The total term-credit mobilised through cooperative and commercial banks during 1981-82 was Rs 484.65 crore which represents an increase of Rs 248.02 crore over the corresponding figures for 1980-81. Per capita subsidy disbursed in 1981-82 was Rs 928 and per capita credit in the corresponding period was Rs 1,713. During 1980-81, the per capita subsidy disbursed was Rs 561 while the per capita credit during the period was Rs 850.

A major development in the field of institutional finance for rural areas which took place in 1982 was the establishment of NABARD. On 12 July 1982, this Bank took over all the functions of Agricultural Refinance and Development Corporation (ARDC), alongwith certain functions of the Reserve Bank of India. As the NABARD has a much wider charter than the erstwhile ARDC, it is expected that this Bank will be able to play its role of financing rural development in an integrated manner. Unlike ARDC, NABARD will also be the refinancing institution for secondary and tertiary sectors in rural areas which constitute a very important thrust of the IRDP.

The Regional Rural Bank (RRB) plays a significant role in providing credit for the weaker sections in rural areas. As on 30 September 1982, RRBs covered 208 districts in 19 states.

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At the end of March 1982, these RRBs had mobilised deposits to the tune of Rs 355 crore. The total advances outstanding were of the order of Rs 436 crore. The Sixth Plan envisages setting up of 170 RRBs, covering 270 districts.

AGRICULTURAL MARKETING

The Directorate of Marketing and Inspection of the Ministry of Rural Development advises the Central and state governments on agricultural marketing problems. Its activities include (i) promotion of grading and standardisation of agricultural and allied commodities, (ii) statutory regulation of markets and market practices, (iii) training of personnel, (iv) market extension, (v) market research, survey and planning, and (vi) administration of Cold Storage Order, 1980 and Meat Food Products Order, 1973.

Grading and Standardisation

The Directorate of Marketing and Inspection enforces compulsory quality control before export on as many as 41 agricultural commodities. The total value of commodities graded for export during 1981-82 was about Rs 412.48 crore. The important commodities graded under *Agmark* for internal consumption include cotton, vegetable oils, *ghee,* cream, butter, eggs, rice, wheat, *atta,* jaggery, pulses, honey and ground spices.

To ensure the purity and quality of products graded under *Agmark* 21 laboratories have been set up at Alleppy, Amritsar, Bangalore, Bhopal, Bhubaneswar, Bombay, Calcutta, Cochin, Guwahati, Ghaziabad, Guntur, Jaipur, Jamnagar, Kanpur, Kozhikode, Madras, Mangalore, Patna, Rajkot, Tuticorin and Virudhnagar alongwith Central Agmark Laboratory at Nagpur as the apex laboratory to provide necessary testing facilities. The Central and Regional Agmark Laboratories at Bombay, Calcutta and Madras are being strengthened further by the addition of biological testing units.

For securing prices commensurate with quality for the farmers, 63 agricultural commodities were graded before sale in 750 grading centres of different states/union territories at the end of March 1982. The total estimated value of the commodities graded at producer's level at these centres during 1981-82 was Rs 693.73 crore.

The Directorate has formulated grade specifications for 123 agricultural commodities.

Regulation of Markets

Regulation of markets is done by the state governments. The Directorate of Marketing and Inspection renders advice in framing market legislation and its enforcement. The number of regulated markets in the country at the end of March 1982 was 4,830 which included 2,317 principal markets and 2,513 sub-market yards.

The Directorate is extending financial assistance to selected regulated markets for providing grading facilities for important commodities like tobacco, jute, cotton, groundnut and cashewnut at the producer's level.

It is also implementing a scheme for providing central assistance for the development of infrastructural facilities in selected regulated markets both at primary and wholesale levels and the markets, situated in command areas, markets predominantly for commercial crops and terminal markets dealing in fruits and vegetables. Since the inception of the scheme in 1972-73 a total amount of Rs 1,419.33 lakh had been provided as grants-in-aid to the

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432 selected regulated markets. Besides, under a new scheme which was started in 1977-78 to assist rural markets grants-in-aid to the extent of Rs 2,375.05 lakh has been provided to various states for the development of 1,884 rural primary markets and 104 rural wholesale markets. The provision for 1983-84 under both the schemes is Rs 3.73 crore.

Training of Personnel

Persons from different states are given training in various fields of agricultural marketing by the Directorate of Marketing and Inspection.

Market Research and Surveys

Under the scheme of market research and surveys, two programmes are being implemented, namely (i) market research and planning and (ii) market planning and design. Under the former, the Directorate carries out country wide market surveys on important agricultural and horticultural and livestock commodities to identify and study the problems of agricultural marketing. Survey of a number of wholesale markets for fresh fruits and vegetables has been carried out as a part of the activities of the Market Planning and Design Centre to make suggestions for their development and improvement. The Centre would study the packaging, grading and transport of selected fruits and vegetables and also advise the authorities on the designing of fruit and vegetable markets.

Cotton Classing Scheme

A Cotton Classing Centre was established at Surat during 1969-70 as a pilot project to grade cotton lint. With the success of pioneer scheme five more such centres were sanctioned—one each in Maharashtra (Nagpur), Karnataka (Raichur), Tamil Nadu (Tirupur), Madhya Pradesh (Khandwa) and Punjab (Abohar). During 1981-82 cotton classing certificates covering 41,691 bales valued at Rs 10.10 crore were issued by these Centres.

Cold Storage Order and Meat Food Products Order

The Cold Storage Order, 1980 is enforced by the Directorate to develop the cold storage industry in a planned manner to ensure hygienic and proper refrigeration conditions to render technical guidance for scientific preservation of foodstuffs. So far 2,370 cold storages with a capacity of 43.74 lakh tonnes have been established in the country.

The Directorate also implements the Meat Food Products Order, 1973 throughout the country to ensure quality control of meat food products for human consumption. Under the Order, 160 units have been granted licences.

Rural Godowns

Recognising the need for creation of additional storage capacity of 20 lakh tonnes at the village level over a period of five years, the Ministry of Rural Development is implementing a special programme for establishing a national grid of rural godowns since 1979-80. The scheme is being implemented through the cooperative societies, market committees and state warehousing corporations. The capacity of these godowns vary from 200 to 1,000 tonnes. The cost of construction of these godowns is met by 50 per cent subsidy which is shared equally between Central and state governments and 50 per cent by way of loans raised from the commercial banks/financial institutions.

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These godowns will meet the storage requirements in respect of foodgrains and other agricultural produce including perishable commodities like fruits, vegetables and animal products. Inputs like fertilizer and seeds could also be stored in these godowns. These godowns will prevent distress sale of foodgrains, reduce the pressure on transport system in the post-harvest period, bring the inputs within easy reach of small and marginal farmers, reduce the losses in quality and quantity arising due to storage in substandard godowns and supplement the existing storage capacity particularly during the post-harvest period. The godowns receipt will be a negotiable instrument. Till the end of 1982-83 construction of 2,607 rural godowns having storage capacity of 124.16 crore tonnes was approved under the scheme.

LAND REFORMS

Land reforms has been recognised and accepted as an important instrument of economic and social change. Immediately after Independence, land reform measures were initiated in the country for achieving the twin objectives of increasing agricultural production and social justice. Land reform is basically a state subject and its implementation rests with them. Legislative measures enacted and adopted in this regard, therefore, vary from state to state to suit the local conditions and requirements. The Government of India, however, coordinates the national policy on the subject and reviews its progress from time to time and points out areas where regular action is necessary in the light of policies formulated for achieving the national objectives.

The objectives of the land reforms policy over the successive plans have been to remove such impediments to agricultural development as arise from the agrarian structure inherited from the past and to eliminate exploitation and social injustice within the agrarian system. Among measures adopted for achieving these objectives, greater emphasis was laid on : (i) abolition of intermediaries, (ii) tenancy reforms including regulations of rent, security of tenure and conferment of ownership rights on tenants, (iii) ceiling on agricultural holdings, (iv) consolidation of holdings and (v) updating and preparation of land records.

Abolition of Intermediary Tenures

By and large, all intermediary tenures like *zamindaris, jagirs, inams,* etc., which covered more than 40 per cent of the area, have been abolished and over two crore cultivators brought into direct relationship with the government. Some of these tenures were of great antiquity and their abolition represents a remarkable transition to a modern agrarian structure.

Tenancy Reforms

Legislative measures have been taken for providing to the tenants security of tenure and for regulating rates of rent payable by them. The maximum rate of rent have been fixed at levels not exceeding one-fourth to one-fifth of the gross produce in all states except in Andhra Pradesh, Haryana and Punjab. The practice with regard to conferment of ownership rights on tenants is not uniform and a number of states continue to recognize tenancy. Many of the states have also provided for conferment of ownership rights on cultivating tenants. However, exceptions have been made in case of land owners who are members of the defence forces, unmarried

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women, minors, widows, and persons suffering from physical and mental disabilities.

Land Ceiling Measures

Laws on ceiling of agricultural land have been enacted and are being implemented in almost all states except in a few areas where the land is held by the community as a whole. The ceiling laws enacted in 50's and 60's were modified in the light of the guidelines issued in 1972. Under the pre-revised ceiling laws, nearly 8.4 lakh hectares were declared surplus and distributed among the landless. With the implementation of the revised ceiling laws, nearly 16.90 lakh hectares had been declared surplus by February 1983, of which about 11.28 lakh hectares were taken possession and about 7.99 lakh hectares had already been distributed to nearly 14.42 lakh beneficiaries of whom more than half were persons belonging to the scheduled castes and scheduled tribes.

Consolidation of Holdings

The national policy on land reforms, right from its inception, has continued to press the need for consolidation of holdings. Most of the states in the country have enacted legislation to undertake consolidation of holdings. In Punjab, Haryana and western Uttar Pradesh, the work has been completed.

Land Records

It has been recognised that updating of land records is essential not only for the implementation of land reforms but also for obtaining agricultural credit, which relies heavily on title to land. The status of land records varies from state to state. While in some states, the records are fairly up-to-date, in others, specially in the eastern region where the *Zamindari* system was in vogue earlier, there is little relationship between entries in the records and the realities in the field. A systematic programme of compilation and correction of land records has, therefore, been undertaken all over the country to reflect up-to-date position about ownership and the rights of the tenants, share-croppers and other holders. Though considerable work has been done, much ground still remains to be covered

Conferment of ownership rights on homestead tenants who belong to the poorer sections of the rural community has been one of the objectives of the land reforms policy. Security of tenure and ownership rights have been conferred on homestead tenants in most of the states. Under the minimum needs programme, about 86 lakh house-sites have so far been distributed to landless workers and artisans in rural areas.

INTEGRATION OF WOMEN INRURAL DEVELOPMENT

A Centrally sponsored scheme for the development of women and children in rural areas is also being implemented during the current plan period in 50 selected backward districts on a pilot basis in collaboration with UNICEF. The scheme also seeks participation and involvement of voluntary agencies operating at the grass root level in various aspects of the scheme for its effective implementation

PANCHAYATI RAJ

Panchayati Raj introduced in 1959, is a three-tier structure of local self government at the village, block and district levels. However, the states are free to make changes in the structure to suit local conditions. All *Panchayati Raj* bodies are organically linked up. Special representation on these bodies is given to interests like backward

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classes, women and cooperative societies. Elected directly by and from among villagers, the *panchayats* are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, common grazing grounds, village roads, tanks, wells and maintenance of sanitation. In some places they also look after primary education, maintenance of village records and collection of land revenue.

Coverage

Panchayati Raj now covers all the states, except Meghalaya and Nagaland. The institution of village *panchayat* exists in all the union territories except Lakshadweep and Mizoram. There are at present 2,16,05! village *panchayats,* 4,521 *panchayat samitis* and 291 *zilla parishads.*

Activities

The *panchayat,* the cooperative and the school are the basic institutions at the village level for carrying out the programmes of rural development. The elected *panchayat* is incharge of all developmental programmes in the area. The cooperative endeavours to supply cheap credit to the people. The village school, which is also a community centre, looks after educational, recreation and cultural needs of the people. Associate bodies, such as women and youth organisations, farmers' and artisans' associations functioning in their respective spheres, are linked up with the *panchayat* in its development activities and are supported in turn by the *panchayat* in their work.

Finance

Panchayati Raj institutions have their own powers of taxation. They levy taxes on houses and certain types of lands, fairs and festivals and sale of goods and impose octroi duties. They also build up remunerative community assets.

The powers and responsibilities of *Panchayati Raj* institutions are derived not only from the respective state legislations, but also from the procedures—administrative and financial—laid down by state governments. Gujarat, Maharashtra and Tamil Nadu have invested these institutions with programme responsibilities over a wide range of activities.

Nyaya Panchayats

Nyaya Panchayats or village courts, which provide a speedy and inexpensive system of justice to the villagers are functioning in some of the states.

Ashok Mehta Committee

With a view to reviewing the functioning of *Panchayati Raj* institutions in the country and to suggest measures to strengthen them, a Committee was set up in 1977 under the chairmanship of Ashok Mehta. The Committee submitted its report in August 1978. The recommendations of the Committee were considered in the Chief Ministers Conference, held in May 1979. A set of guidelines, based on the consensus arrived at in the Conference is now under preparation.

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16 CIVIL SUPPLIES AND COOPERATION

CIVIL SUPPLIES

The Department of Civil Supplies of Government of India is responsible for monitoring of prices and availability of essential commodities, administration of Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act, 1980, public distribution system, consumer protection and consumer cooperatives, integrated management of supply, prices and distribution of vanaspati, oil seeds, vegetable oils, cakes and fats, control of future trading and matters relating to weights and measures and the Indian Standards Institution (ISI).

The Department is assisted by the Directorate of Weights and Measures; Directorate of Vanaspati, Vegetable Oils and Fats; Indian Standards Institution, New Delhi; Forward Markets Commission, Bombay and Trade Marks Registry, Bombay.

PRICE MANAGEMENT

The overall price situation in 1982-83 has been relatively subdued and showed considerable degree of stability for most part of the year. The price rise has been moderate keeping in view the unseasonal rains in April and May 1982 and the widespread drought in the country affecting more than 4 crore hectares of land and a population of more than 30 crore.

The high rates of inflation in 1979-80 and 1980-81 came down substantially in 1982-83. In February 1980 the rate of inflation, measured in terms of the wholesale price index was 25.2 per cent. It came down to 16.2 per cent in February 1981. In February 1983 it was 4.7 per cent. The trend in the rates of inflation during the past two years is given in table 16.1.

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TABLE 16·1
ANNUAL RATES OF INFLATION

Month	Annual Rate of Inflation		
	1981	1982	1983
January	+15·6	+6·8	+2·5
February	+16·2	+3·7	+4·7
March	+15·8	+2·6	
April	+17·3	+0·4	
May	+15·8	+0·1	
June	+13·2	+2·1	
July	+11·0	+1·9	
August	+11·1	+1·8	
September	+8·0	+2·1	
October	+7·4	+2·0	
November	+8·9	+2·8	
December	+8·7	+2·7	

The wholesale price index moved up by 5.3 per cent during the period April 1982—February 1983, an increase of less than half a per cent a month on an average. In the same 11 months in 1981-82 the wholesale price index had moved up by 3.2 per cent. In 1980-81 and 1979-80, for the identical period the wholesale price index had gone up by 15.3 per cent and 22.3 per cent respectively. From April to August 1982 the wholesale price index moved up by 6.2 per cent but between September 1982 and February 1983 the wholesale price index moved down by 0.9 per cent.

A commodity-wise analysis shows a mixed trend. Cereals witnessed an increase in their prices despite larger releases through the public distribution system. The lower *kharif* harvest had its impact on their prices. Pulses showed a subdued trend generally except for *arhar* and *urad*. Sugar and *gur* prices were lower. There was moderate increase in the prices of edible oils during 1982-83 except mustard and kardi oils whose prices were lower. Vanaspati prices since March 1983 have been steady.

The trend in the wholesale prices of essential commodities has, by and large, been in line with trend in their prices at the retail level.

Consumer Price Index

The consumer price index for industrial workers moved up between April 1982 and January 1983 by 8.3 per cent compared to 9.3 per cent in the same period in 1981-82. During April—August 1982, the index had gone up by 6.8 per cent while during the subsequent five months from September 1982 to January 1983, the rise has been only 1.4 per cent.

PRODUCTION OF ESSENTIAL COMMODITIES

The production of foodgrains was 13.3 crore tonnes in 1981-82 compared to 13 crore tonnes in 1980-81. The production of cereals moved up from 11.9 crore tonnes in 1980-81 to 12.2 crore tonnes in 1981-82. The production of pulses was 1.13 crore tonnes in 1981-82 as against 1.06 crore tonnes in 1980-81. Some setback in foodgrains production in 1982-83 is anticipated due to unfavourable weather conditions in 1982. Sugar production in the sugar year 1981-82 reached a record 84.38 lakh tonnes compared to 51.48 lakh tonnes in 1980-81. The year 1982-83 is expected to be another good period for sugar production. Oilseeds production improved from 94.18 lakh tonnes in 1980-81 to 120.60 lakh tonnes in 1981-82. The production of vanaspati

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in 1981-82 was 9.04 lakh tonnes as against 8.27 lakh tonnes in 1980-81. However, the 1982 *kharif* oilseeds production suffered due to drought.

The production of most of the mass consumption manufactured products in the organised industrial sector was higher during the first nine months of 1982-83 (April–December) than in 1981-82 for the same period. These included vanaspati, baby food, biscuits, soap, synthetic detergents, pencils, dry cells, razor blades, bicycle tyres and cement. There was, however, decline in the production of cotton cloth, salt, soda ash, matches, leather footwear and paper. None of these commodities was, however, in short supply.

Availability of Essential Commodities

The availability of essential commodities and items of mass consumption remained generally satisfactory during 1982-83. General improvement was noticed in the availability of sugar, *khandsari* and *gur*, pulses, edible oils including vanaspati, cement, soft coke and most of the manufactured products of mass consumption. Despite increased supplies there were reports of shortage of kerosene. A notable feature of supply management was the fairly easy availability of essential commodities like sugar and edible oils during the festival season and during the Ninth Asian Games in 1982 in Delhi.

Containing Inflation

A number of supply management measures were taken to increase the production, improve the availability, strengthen the supply management and keep the price line in check. Some of the important measures taken are as follows :

- The support/procurement prices of various agricultural commodities were raised further as a measure of incentive for increased production and productivity.
- The off-take of foodgrains from government stock moved up. The off-take of foodgrains from government stock went up from 131.1 lakh tonnes in 1981 to 147.8 lakh tonnes in 1982. The off-take of foodgrains from government stock in January 1983 amounted to 14.5 lakh tonnes as against 11.7 lakh tonnes in January 1982.
- The public distribution system is being strengthened. The number of fair price shops has gone up by about 50,000 during the last three years.
- The domestic production of essential commodities in short supply is supplemented by imports as in the case of petroproducts, edible oils, cement, pulses and wheat.
- The state governments were advised from time to time to enforce vigorously the provisions of the Essential Commodities Act and other similar legislations including Price Display Order and Storage Control Order to curb the activities of blackmarketeers, hoarders and other anti-social elements.
- The supply of imported edible oils through the public distribution system was stepped up during the lean and festival seasons. In the 1981-82 oil year, 4.03 lakh tonnes of imported edible oils were lifted for distribution through the public distribution system.
- Imported edible oils are supplied to the vanaspati industry to the extent of 60 per cent of its requirement. The supply to the vanaspati industry was stepped up during the festival season from 60 per cent to 70 per cent in August 1982 and further to 80 per cent in September—November 1982.

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— The vanaspati industry is observing a voluntary price discipline by selling it at the ex-factory price of Rs 217 a tin of 16.5 kg inclusive of excise duty.

— The monthly releases of levy sugar have been raised from 2.71 lakh tonnes to 2.94 lakh tonnes since April 1982. The releases of free-sale sugar were also stepped up. During April 1982—February 1983, the off-take of free-sale sugar amounted to 25.99 lakh tonnes as against 18.81 lakh tonnes during the same period in 1981-82, showing an increase of 7.18 lakh tonnes or a monthly average increase of 65,000 tonnes.

— The sales of kerosene increased from 38 lakh tonnes during April 1981—January 1982 to 42.86 lakh tonnes for the same period in 1982-83.

— The movement of essential commodities by railways increased. During April—October 1982, 706 lakh tonnes of 10 essential commodities (foodgrains, sugar, cement, coal, kerosene, salt, milk powder, soap, soda ash including caustic soda and vegetable oils and other edible oils) were moved by the railways as against 634 lakh tonnes during the same period in 1981-82, registering an increase of 11.4 per cent.

— The monetary policy in 1982-83 was flexibly employed having considerations of the need for keeping inflationary pressure under control and for channelling adequate bank credit to productive sectors of the economy.

Legal Measures

In the complex economic system as prevailing today, a certain legislative protection is necessary to safeguard the interests of the consumers. The country has taken various measures to achieve this objective.

The main legislation governing the production, procurement, price control and distribution of essential commodities is the Essential Commodities Act, 1955. As some of the existing provisions of the Essential Commodities Act, 1955 were considered not adequate or effective in quick disposal of cases or otherwise to deter the activities of the anti-social elements indulging in blackmarketing, hoarding, etc., the Government amended the Act by enacting the Essential Commodities (Special Provisions) Act, 1981. The amending Act made the panel provisions of the Essential Commodities Act, 1955 more stringent, including a provision for summary trial for all offences under the Act. The amending Act has been brought into force from 1 September 1982. Till now 66 commodities have been notified as essential under the Act.

To check the trend of increasing prices and artificial scarcity of commodities sought to be created by unscrupulous traders, an Ordinance was promulgated on 5 October 1979, namely the Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Ordinance, 1979, providing for preventive detention of persons with a view to detering them from acting in any manner prejudicial to the maintenance of supplies of commodities essential to the community. The Ordinance was replaced by an Act of Parliament in February 1980. The Act was amended in 1982 to empower the District Magistrates/Commissioners of Police to take expeditious action against absconding persons.

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PUBLIC DISTRIBUTION SYSTEM

A public distribution system has been functioning in the country covering the rural and urban areas. It has been made an integral part of the socio-economic structure of the country. At the beginning of 1983, there were 2.84 lakh fair price shops functioning in the country for distribution of certain essential commodities to the consumers in the rural and urban areas. The commodities supplied for distribution by the Central Government are wheat, rice, sugar, imported edible oils, kerosene, soft coke and controlled cloth. These commodities are being procured and supplied to states by certain designated public sector and cooperative agencies, such as the Food Corporation of India, the State Trading Corporation of India, Coal India Ltd., various petroleum companies and the National Cooperative Consumers' Federation. The state governments have also been given the option to include for issue to the consumers, any other commodity considered by them as essential for mass consumption, by arranging for its procurement on their own through agencies nominated by them. Thus some state governments are also distributing items such as pulses, vanaspati, cycle tyres and tubes, torch cells, soaps, etc., through selected public distribution outlets.

The functioning of the public distribution system in the country is kept under constant review by the Central Government in consultation with the state governments/administrations of union territories. As a result of this, corrective measures, wherever necessary, are taken from time to time to improve the supply of various essential commodities to the consumers. The organisation and administration of the public distribution system within their respective territories is primarily the responsibility of the state governments/union territory administrations. The latter seek to ensure that the commodities are supplied in a timely manner to the retail outlets of the system and are distributed to the consumers at pre-determined prices. The Central Government is supplying such essential commodities to the state governments at central issue prices which are also subsidised in certain cases. The state governments are authorised to add to these issue prices, certain incidental charges like transportation, local taxes, etc., in fixing the retail price paid for each commodity by the consumers.

The consumer cooperatives in urban areas and the primary agricultural credit societies in the rural areas are also being strengthened with Central assistance for stepping up consumer distribution activity in a larger way, especially to cover remote and inaccessible areas and the weaker sections of the community. The Sixth Plan envisages a much bigger role for the cooperatives in the distribution system so that, over a period of time, the entire network of retail outlets under the public distribution system could be run by them.

Under the Revised 20-Point Programme, the expansion of the public distribution system has been made an important point of action. This includes opening of mobile shops in far-flung areas and also shops to cater to industrial workers, students' hostels, etc. Action is being taken to implement this programme.

In order to make the public distribution system more effective, an advisory council has been constituted at the Centre to review periodically the functioning of the system. The state governments/union territory administrations have also been advised to constitute

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consumer advisory committees at the state and field levels to oversee the functioning of the public distribution system. State civil supplies corporations have been set up in 12 states and the union territory of Delhi.

CONSUMER COOPERATIVES

Consumer Cooperatives are being developed to support the public distribution system in the country. In the urban areas, the growth of these cooperatives is aimed at providing increasing coverage of the weaker sections and achieving higher efficiency in functioning, to give greater consumer satisfaction by making available quality goods at reasonable prices. In the rural areas, more and more agricultural credit cooperatives/primary marketing societies are being involved in the distribution system to meet the consumer requirements in villages. The strengthening of consumer cooperatives to promote a strong consumer protection movement in the wake of the Revised 20-Point Programme has assumed special significance.

National Cooperative Consumers' Federation

The National Cooperative Consumers' Federation (NCCF) is the apex national level consumers' cooperative institution in the country. It is engaged in bulk procurement of essential commodities and their supply to affiliated organisations throughout the country. It has also set up a consultancy and promotional cell with regional offices at Calcutta, Delhi and Madras for giving technical and managerial consultancy services to the consumer cooperative movement. It has also a very important role to play in the public distribution system for maintaining supply of essential commodities. The Federation is dealing both in controlled and non-controlled textiles, general merchandise such as paper, soda ash, razor blades, soaps, detergents, ready-made garments, stainless steel utensils and a number of grocery items like pulses, tea, rice and salt. The Federation has also been engaged in bulk procurement and buffer stocking of pulses for effecting a salutary impact on the pulses market in the country. Besides, it has also taken up distribution of a few selected commodities which are particularly required during the festival season.

NCCF has entered into arrangements with manufacturers for production of blades, cheap varieties of textiles among other items under their own brand name. It is also running certain consumer industries such as production of exercise books and processed spices. The annual sales turn-over of the Federation during 1981-82 was Rs 126.79 crore.

The scheme of supplying essential commodities to students' hostels was circulated to state governments and union territory administrations in July 1975. It provides for supply of essential consumer articles, such as foodgrains, pulses, spices, vanaspati and other edible oils, tea and coffee, sugar and the like through consumer cooperative institutions to students' hostels and approved lodgings at preferential/concessional rates. This programme is under implementation in all the states and union territories.

Distribution of Consumer Articles in Rural Areas

A scheme for strengthening the primary agricultural cooperatives and marketing cooperative societies to undertake distribution of consumer articles in rural areas, is being implemented by the National Cooperative Development Corporation (NCDC) since 1976. Under

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this scheme, NCDC has sanctioned financial assistance of Rs 48.98 crore to 35,799 societies from 1975-76 to 1981-82.

CONSUMER PROTECTION

In order to safeguard the interests of the consumer in the matter of quantity, quality and price, the existing laws dealing with the various aspects of consumer protection are reviewed from time to time. In addition, steps are taken to create awareness among the consumers so that they may assert to establish for themselves the right to physical and economic safety, the right to be informed, the right to choose and the right to be heard. For this purpose, the Department of Civil Supplies operates a scheme under which financial assistance is provided to voluntary consumer organisations for selected projects such as publications concerning consumer affairs, consumer education and setting up of complaint cells, setting up of laboratories for testing consumer items, organising seminars, workshops, etc.

Steps are being taken to strengthen the Consumer Protection Division to enable it to undertake the following programmes :

(i) to have constant review of trade practices with a view to spotting out unhealthy trends in the economy that militate against the interests of the consumer;
(ii) to formulate proposals for legislative and administrative measures to curb the growth of unfair trade practices;
(iii) to ensure effective implementation of the weights and measures laws and of the statutory rules and packaged commodities;
(iv) to encourage and motivate voluntary consumer organisations with a view to giving further momentum to the consumer protection movement;
(v) to undertake survey in the areas of consumer interest, give guidance and advice to the manufacturers and traders; and
(vi) to collect and disseminate information on matters relating to consumer protection and to provide guidelines and advice to the consumer organisations and the public in general.

Standardization and Quality Control

The Indian Standards Institution (ISI), the national standards body for India, was established in January 1947. The aims and objects of the Institution comprise preparation of national standards and their "promotion for general adoption", recommendations to Government on standards for units of measurement; promotion of standardization and quality control in industry; operation of ISI Certification Marking Scheme and undertaking circulation of statistics and other information relating to standards.

The powers to grant licences to manufacturers within the country to use the ISI standard mark as a mark of conformity to relevant standards were conferred statutorily on the Institution by the promulgation of the Indian Standards Institution (Certification Marks) Act, 1952.

The Institution has the active assistance of 36,800 committee members drawn from all over the country representing industries, educational research institutions, testing laboratories, user organizations, government representatives, etc. The task of formulating standards is organized through its 11 Technical Divisions operating

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under the guidance of corresponding Division Councils. So far, nearly 11,630 Indian standards on various subjects have been formulated and presently about 800 standards including revisions are being issued every year.

In the area of certification marks, 6,947 licences were operating as on 31 March 1983 covering about 3,500 industrial units against about 1,000 Indian standards. On an average about a thousand new licences for certification are issued each year presently.

With a view to assisting the quality of products under the Certification Scheme on a continuing basis, samples are drawn from the factories and from the market and are subjected to test. While a large number of public and private laboratories in the country are being used in this massive testing programme, ISI has established its own net-work of standard testing laboratories. Presently, laboratories at Delhi (Sahibabad), Bombay, Calcutta, Madras, Chandigarh (Mohali) and Patna are functioning.

ISI has established close liaison with national standards bodies of all the other countries and is closely associated with the International Standards Organization (ISO) and International Electrotechnical Commission (IEC) both in their technical work and in their policy planning.

ISI has been rendering assistance to a large number of developing countries in training standards engineers under the various international fellowship schemes such as Colombo Plan, Special Commonwealth African Assistance Plan (SCAAP), Indian Technical Economic Cooperation (ITEC) Programme, etc. India has also rendered technical guidance to set up standardization organization in a number of developing countries.

Regulation of Weights and Measures

The standards of weights and measures, based on the metric system, were established, for the first time, under the Standards of Weights and Measures Act, 1956. Metrication has been the short-term aspect of the weights and measures laws; their long-term objective being to provide protection to the consumer by guaranteeing him the correct quantity of goods and services he pays for. The Directorate of Weights and Measures in the Department of Civil Supplies functions as a nodal point for all activities relating to consumer protection, particularly the standardisation of weights and measures and consumer awareness programmes.

The metric system has been adopted in almost all the sectors of the economy, and an enforcement machinery for legal control on weights and measures has been created in all the stages and union territories.

In order to introduce the International System of Units—the modernised and developed form of the metric system—and to bring laws in line with international recommendations adopted by the International Organisations of Legal Metrology (OIML), the Standards of Weights and Measures Act, 1976 was enacted. The enforcement is done by states/union territories in accordance with their own laws. It is now necessary to revise the enforcement laws in the light of this Act. Steps are being taken for this purpose.

The provisions of the 1976 Act and the rules framed thereunder for the regulation of packaged commodities were brought into force from 26 September 1977. They stipulate that every packaged commodity intended for retail sale should carry a declaration of the

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net-contents, the month and the year of manufacture or packing, the name and address of the manufacturer/packer, and the price. Provisions have also been made to curb other malpractices such as deceptive packaging, multiplicity of pack sizes and packing in non-standard quantities making unit price comparison difficult. The provisions relating to packaged goods have proved effective in establishing fair trade and price discipline in respect of commodities sold to the consumer in packaged form.

The Indian Institute of Legal Metrology, Ranchi, imparts training to the personnel in weights and measures organisations of the states/union territories. The Institute is the only one of its kind in the South-East Asia, and also attracts trainees from other developing countries.

The Regional Reference Standards Laboratories have been set up at Ahmadabad and Bhubaneswar during the Fifth Plan. They have started verification/calibration of standards used in the states weights and measures laboratories. They also undertake calibration of high accuracy measuring instruments used in industry.

The National Physical Laboratory, New Delhi, is responsible for the realisation, establishment, custody, maintenance and updating of national standards of weights and measures. The Government of India Mint, Bombay, has been made responsible for the manufacture of reference, secondary and working standards. The Mint also caters to the needs for standards of several other countries in the region.

Regulation of Forward Contracts

The Forward Markets Commission, set up under the Forward Contracts (Regulation) Act, 1952, is a statutory organisation responsible for the administration and enforcement of this Act. It regulates forward trading in various commodities to which the regulatory provisions of the Act have been applied through associations recognised at selected centres for such trading, and it takes action to curb unhealthy speculation in such regulated forward markets. It also keeps a watch over the price trends of a number of commodities including certain essential commodities. It assists the state governments in the enforcement of the Government's policy regarding prohibition or suspension of forward trading in any commodity. The Commission has its head office at Bombay, with branch office at Calcutta.

During 1982, future trading was permitted under regulation through recognised associations in (i) jute sacking at Calcutta, (ii) pepper at Cochin and Bombay, (iii) turmeric at Sangli, and (iv) *gur* at Hapur, Muzaffarnagar, Delhi, Bhatinda, Amritsar, Ludhiana, Gwalior, Kanpur and Rohtak. In the case of *gur*, the permission was given pursuant to a decision taken by the Government in 1982 to allow the resumption of future trading in *gur*. Transferable specific delivery contracts and non-transferable specific-delivery contracts were permitted in raw jute and jute goods under the auspices of the recognised association at Calcutta. Non-transferable specific-delivery contracts of limited duration continued to be permitted in cotton of different descriptions under the auspices of the recognised associations at Bombay, Ahmadabad, Bhatinda, Surat, Broach, Surendranagar, Ujjain, Guntur and Coimbatore.

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The Commission continued its drive against illegal forward trading in commodities such as oilseeds, cotton, jute, jute-seeds, etc. The Commission also organises training courses to acquaint the state police authorities with the nature, *modus operandi* and other related aspects of offences under this Act.

Registration and Use of Trade Marks

The Trade and Merchandise Marks Act, 1958 provides for the registration and better protection of trade marks and for the prevention of the use of fraudulent marks on merchandise. The Trade Marks Registry is the statutory organisation set up for the administration of the Act. It works under the Controller-General of Patents, Designs and Trade Marks, who is the Registrar of Trade Marks for the purpose of the said Act. The Registry has its head office at Bombay, with branch offices at Calcutta, Delhi and Madras. The Register of Trade Marks is kept at the head office at Bombay and a copy thereof at each branch office.

EDIBLE OILS AND VANASPATI

Edible oils and vanaspati have been declared essential commodities under the Essential Commodities (Regulation) Act, 1955. The demand for edible oils in the country has ranged between 34 to 38 lakh tonnes whereas indigenous production has varied between 24 to 27 lakh tonnes annually. The gap between the demand and indigenous production has been sought to be met by importing edible oils from abroad. Since 2 December 1978, all imports of edible oils are being canalised through the State Trading Corporation. The policy of supplying imported edible oils to consumers through the public distribution system has been followed since 1977.

The Directorate of Vanaspati, Vegetable Oils and Fats, set up under the Department of Civil Supplies in November 1976, has the responsibility at the field level, for the coordinated management of the edible oils economy including price, quality control, production, supply and distribution for the internal trade and commerce of vanaspati, vegetable oils, oil cakes and meals.

Vanaspati Industry

The vanaspati industry which made a small beginning in 1930 with a limited production, has made rapid strides touching a peak production of about 8.8 lakh tonnes in 1982. There are at present 93 units having a licensed capacity of 14.2 lakh tonnes per year. This capacity is also utilised for the manufacture of margarine, bakery shortening, refined oils for direct consumption and for soap making.

Solvent Extracted Oils

The number of oilseeds crushing units in the organised sector is with an annual installed capacity of about 5.9 lakh tonnes in terms of oils and 84.0 lakh tonnes in terms of oil cakes. The total production of all types of solvent extracted oils during 1982 was 2.9 lakh tonnes.

Expeller Oils

The number of oilseeds crushing in the organised sector is around 250 and their annual capacity is of the order of 83 lakh tonnes in terms of oilseeds. The number of units in the unorganised sector is estimated to be well over one lakh and their capacity is around 133 lakh tonnes.

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COOPERATION

The cooperative idea took a concrete shape in India for the first time in 1904, when the Cooperative Credit Societies Act—a measure designed to combat rural indebtedness and to provide for registration of credit societies—was passed. Later, in 1912, the Cooperative Societies Act also provided for registration of non-credit societies as well as federations of cooperatives. Since then, the cooperative movement has made noticeable progress, specially in the field of agricultural credit, marketing and processing of agricultural produce, supply of farm inputs and distribution of consumer goods. By the end of June 1981, there were 3 lakh cooperatives in the country, of which about 65 per cent were operating in the rural areas, largely engaged in serving the farmers, landless labourers and other sections of the rural population.

GROWTH OF COOPERATIVES

The salient features and operational dimensions of the cooperative movement in India for selected years between 1960-61 and 1980-81 are given in table 16.2.

TABLE 16·2
GROWTH OF COOPERATIVES

	1960-61	1970-71	1975-76	1977-78	1978-79	1979-80	1980-81
No. of Societies (lakhs)	3·3	3·2	3·1	3·0	3·0	2·9	3·0
Membership of Societies (lakhs)	342	591	848	931	1,014	1,010	1,062
Share Capital (Rs crore)	222	851	1,529	1,812	N.A.	1,987	2,088
Working Capital (Rs crore)	1,312	6,810	12,432	16,691	18,904	19,058	20,021

A study of the data in table 16.2 shows that between 1960-61 and 1980-81—a period of 20 years—the membership of primary societies increased by more than three times, the share capital of all types of cooperatives increased by more than nine times and the working capital by more than fifteen times.

Primary Agricultural Credit Societies

By far the largest number of societies were in the agricultural credit sector. At the end of June 1981, there were 94,019 primary agricultural credit societies, covering more than 96 per cent of the rural areas. The membership of these societies was 5.73 crore as on 30 June 1981. Universal membership has now been accepted as the policy so far as the primary agricultural societies are concerned, so that the people belonging to the weaker sections could become members of the cooperatives and avail of their services. The societies had a share capital amounting to Rs 545.6 crore in June 1981 and short-term agricultural lending amounting to Rs 1,441 crore during 1980-81.

Marketing and Processing Cooperatives

The cooperative marketing structure consists of about 4,003 cooperative marketing societies covering all important agricultural markets in the

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country—380 district/regional marketing societies, including 208 sugarcane supply marketing societies and cane unions, 31 state level cooperative marketing federations and one National Agricultural Cooperative Marketing Federation. The total value of agricultural produce handled by marketing cooperatives amounted to about Rs 2,100 crore in 1981-82. The value of foodgrains handled by marketing cooperatives increased from about Rs 220 crore in 1968-69 to about Rs 570 crore in 1981-82. During 1981-82, the National Agricultural Cooperative Marketing Federations' turnover stood at over Rs 152 crore, as against Rs 30.53 crore in 1976-77. This included exports amounting to Rs 84 crore.

The structure of processing units established in the cooperative sector conforms to two distinct patterns, namely, (a) units established by independent processing societies, and (b) units established as adjuncts to cooperative marketing societies. Under the first category fall the larger units, such as, cooperative sugar factories, spinning mills and solvent extraction plants. Medium and small units, such as rice mills, oil mills, cotton ginning and processing units, jute baling units, mostly fall under the second category. Of the 2,399 units organised during 1981-82 in the cooperative sector, 1,968 units were installed of which 246 units were large and medium sized industry like sugar mills, spinning mills, solvent extraction plants, jute mills, etc. During 1981-82 sugar season, 153 cooperative sugar factories were in production. They produced 45.58 lakh tonnes of sugar accounting for 55 per cent of the country's total production of sugar. At the national level, the National Federation of Cooperative Sugar Factories renders advice and maintains a technical cell. It has helped in organising the National Heavy Engineering Cooperative Ltd. for manufacturing machinery in the cooperative sector at Punē, Maharashtra.

Storage

The National Cooperative Development Corporation is responsible for planning, promoting and financing the programme of augmenting storage capacity of cooperatives at various levels. Storage capacity of over 57.5 lakh tonnes had already been constructed in the cooperative sector by the end of June 1982 as against a capacity of 8 lakh tonnes in 1960-61. By June 1982 as many as 28,297 rural godowns and 5,531 marketing godowns had been constructed. During 1981-82, 138 cooperative cold storage units with a total capacity of 2.81 lakh tonnes were also installed. The Corporation has launched a large programme for construction of over 20,000 godowns with a capacity of nearly 37 lakh tonnes in 10 states and also 127 cold storages in five potato growing states with assistance from the European Economic Community and International Development Association.

Industrial Cooperatives

Cooperatives occupy an important place in the field of village and small industries and handloom weaving. As on 30 June 1979, there were 45,458 industrial cooperatives with a membership of 22.88 crore. During 1978-79, sales of primary societies were of the order of Rs 272.7 crore.

The National Federation of Industrial Cooperatives, which was set up with a view to assist in the marketing of products of member societies, make efforts to consolidate and strengthen its position.

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Cooperative Spinning Mills

The total number of spinning mills organised and installed in the cooperative sector was 166 and 63 respectively by 1981-82. Of the 63 installed mills, 26 are growers' mills and 37 are weavers' mills. During 1981-82, the number of installed spindles in the cooperative sector was 15.54 lakhs. The total membership of the cooperative spinning mills stood at 3.64 lakh. The share capital of 61 mills for which data are available is Rs 76.39 crore.

The spinning mills have organised at the national level, the All India Federation of Cooperative Spinning Mills Ltd. The Federation is a promotional and developmental organisation and provides consultancy services for establishment of new mills and for expansion of existing mills. It maintains a pool of key personnel for its members with a view to providing comprehensive technical expertise in the management of spinning mills.

Supply of Agricultural Inputs

To help farmers, cooperatives in India play a significant role in the production and distribution of agricultural inputs, such as, fertilizers, seeds, pesticides and agricultural implements. Nearly 47 per cent of the total fertilizers distributed in the country are sold through the cooperative distribution system. The cooperatives have also diversified their activities in recent years to cover new lines of business like production of granular fertilizers, production, processing and distribution of seeds, manufacture and distribution of improved agricultural implements and setting up of agro-service centres.

IFFCO

The Indian Farmers Fertilizer Cooperative Ltd. (IFFCO), is a unique cooperative venture in the field of large scale fertilizer manufacture. It is one of the leading producers of fertilizers in the country, its share in the national production being 14 per cent in terms of nitrogen and 26 per cent in terms of phosphates. Registered in 1967 with the support of cooperatives in the country and the Government of India with the objective of manufacturing and marketing fertilizers for the benefit of farmer members of affiliated cooperatives, the membership of IFFCO covers about 27,000 cooperative institutions ranging from the national level federations to the village level cooperatives in 16 states and 3 union territories. It has set up ammonia and urea plants at Kalol (Gujarat) and a NPK complex fertilizer plant at Kandla (Gujarat). The ammonia and urea plants have been designed to a capacity of 3 lakh tonnes and 3.9 lakh tonnes per year respectively and the NPK plant has a capacity of 3.75 lakh tonnes per annum. IFFCO's Kalol and Kandla plants commenced production in early 1975.

IFFCO's marketing strategy revolves around selling the concept of modern farming technology instead of just the fertilizer alone. For this purpose, it operates through field force of more than 300 trained agricultural technologists who function at the grassroot level in the villages and lay down practical demonstrations in the use of balanced fertilizers, improved seeds and other inputs as also in the soil testing and in obtaining credit from the cooperative societies.

IFFCO has set up a naphtha based ammonia and urea plant at Phulpur near Allahabad designed to produce 900 tonnes per day of ammonia and 1,500 tonnes per day of urea, respectively. The plant

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went into production in March 1981. During 1981-82 capacity utilisation of the plant was of the order of 80 per cent.

The proposal for setting up another large sized ammonia and urea complex in the cooperative sector at Hazira near Surat (Gujarat) based on natural gas available from the Bombay High/South Bassein has been approved. The complex will consist of two ammonia plants each with a capacity of 1,350 tonnes per day and two urea plants each having capacity of 1,100 tonnes per day with an estimated capital cost of about Rs 980 crore. The project is expected to be completed by 1985.

FUNCTIONAL COOPERATIVES

Functional cooperatives for programmes like dairy, fishery and poultry mainly relate to the service of weaker sections. Such cooperatives provide increased employment and income opportunities to different sections of the community like small and marginal farmers and fishermen.

Dairy Cooperatives

On 31 December 1978 out of a total of 190 dairy plants in operation in India, 80 were in the cooperative sector. On 30 June 1981, there were 29,169 primary milk supply cooperatives with a membership of 26.7 lakh. During 1980-81, the cooperatives handled milk and milk products valued at Rs 277 crore. The primary milk cooperatives are federated into 203 unions. A National Federation of Dairy Cooperatives was set up in 1970. The National Cooperative Development Corporation (NCDC) gives financial assistance to dairy cooperatives.

Fishery Cooperatives

The organisational structure of fishery cooperatives normally consists of primary fishery cooperatives at the base. A super-structure of federation of primary fishery cooperatives has also been built up. This consists of district and central federations and state level federations. An All India Federation of Fishermen's Cooperative was set up during 1979-80. In June 1981, there were 4,760 primary fishermen's cooperatives with a membership of 5.52 lakh. The total value of fish and fish products handled by these cooperatives during 1980-81 was of the order of Rs 17.73 crore. NCDC also gives financial assistance for development of fishery cooperatives.

Poultry Cooperatives

By the end of June 1980, there were over 1,291 primary poultry cooperatives with a membership of 68,225. These handled poultry and poultry products valued at Rs 7.56 crore during 1980-81.

Multi Purpose Tribal Cooperatives

As part of the programme of economic development of tribals, primary cooperatives in tribal areas are being reorganised to enable them to function as multi-purpose societies providing short and long-term credit to the tribals, undertaking collection and marketing of agricultural and minor forest produce, arranging for supply of agricultural inputs as well as essential consumer goods. State level cooperative tribal development corporations/federations have been established in Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Rajasthan, West Bengal and Orissa to serve as apex organisations for marketing of minor forest produce and consumer goods.

Labour contract and construction cooperatives have been organised with a view to providing employment at reasonable wages to their mem-

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bers and preventing their exploitation by the contractors. During 1980-81, there were 12,842 labour cooperatives and forest labour cooperatives with a membership of 8.70 lakh.

The number, membership and working capital of selected primary non-credit societies during 1980-81 are shown in table 16.3.

TABLE 16·3
PRIMARY COOPERATIVE SOCIETIES

Type of Societies	Number	Membership (in' 000)	Working capital (Rs in lakh)
General purpose marketing societies .	3,041	3,382	1,31,441
Specialised marketing societies . .	962	394	8,982
Milk supply societies	29,169	2,668	8,679
Poultry cooperative societies . . .	1,291	68	564
Fishery societies	4,760	652	2,258
Forest labour societies	2,750	300	6,749
Labour contract and construction societies	10,092	569	4,207
Cotton ginning, pressing societies . .	241	212	3,607

Training and Research

A three-tier well-organised structure of cooperative training is available in India. It consists of a national institute of cooperative management known as Vaikunth Mehta National Institute of Cooperative Management (VMNICM), Pune, for catering to the training requirements of senior personnel, a network of 17 cooperative training colleges for training of intermediate personnel and 86 cooperative training centres for training of junior personnel. The VMNICM and 17 cooperative training colleges situated at state headquarters are functioning under the administrative and financial control of the National Council for Cooperative Training of the National Cooperative Union of India, which is financed entirely by the Government of India. Cooperative centres for training of junior category personnel are functioning under the control of state cooperative union and state governments.

National level Cooperative Federations

A major development over the past one decade has been the emergence of national cooperative federations, which have added a new dimension to the cooperative infra-structure. With National Cooperative Union of India at the apex, the other national level cooperative organisations include the National Agricultural Cooperative Marketing Federation, the All India State Cooperative Banks Federation, the National Federation of Cooperative Sugar Factories, the National Cooperative Land Development Banks Federation, the National Cooperative Consumers' Federation, the National Federation of Industrial Cooperatives, the All India Federation of Cooperative Spinning Mills, the National Cooperative Housing Federation, the National Cooperative Dairy Federation of India, the National Federation of Cooperative Urban Banks and Credit Societies and the All India Federation of Cooperative Refinery Societies.

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17 ENERGY

Energy in one form or another enters practically every single economic activity and its availability and cost decides the economic future and well being of the nation. The requirement of energy in India is, as in many developing countries, met from a variety of forms *e.g.* fire wood, animal dung, agricultural wastes, electricity, nuclear fuels, oil and coal. While the non-commercial forms of energy meet the bulk of the rural energy demands, the most convenient commercial energy sources are coal, oil and electricity.

Recognising the growing need for energy and for its over-all economic development, a new Ministry of Energy was created in October 1974 comprising the Departments of Power and Coal. This Ministry was given the responsibility for general policy in the field of energy and development of coal and power sectors. Subsequently, Department of Petroleum also became part of Ministry of Energy. Considerable work is being done on alternate sources of energy all over the world and in India too a number of projects have been taken up with a view to take up research and development and promote non-conventional sources of energy which were hitherto either unknown or were not economical and popular. The Department of Non-Conventional Energy Sources was established in September 1982 under the Ministry of Energy to formulate the policies and programmes for development of new and renewable sources of energy and also to coordinate and intensify research in this field. With this it is expected that the pattern of energy generation and consumption will change in the coming decades. The Government had appointed the Fuel Policy Committee in 1970 to recommend the outline of the long-term national fuel policy. Based on the recommendations of the Committee and subsequent developments, a comprehensive energy policy has been formulated. The main thrust of the policy is towards development of indigenous sources of energy with a view to achieve self-sufficiency, conservation of energy and elimination of wasteful uses.

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POWER

Electricity is the most convenient and versatile form of energy. The demand for it, therefore, has been growing at a rate faster than other forms of energy. Power industry, too, has recorded a phenomenal rate of growth both in terms of its volume and technological sophistication over the last few decades. Electricity plays a crucial role in both industrial and agricultural sectors and, therefore, the consumption of electricity in the country is an indicator of productivity and growth. In view of this, power development has been given high priority in the development programme.

The pattern of electricity consumption during the last decade is indicated in table 17.1.

TABLE 17·1
PATTERN OF ELECTRICITY CONSUMPTION

in TWH

	Industrial	Transport	Agriculture	Domestic Commercial and Services	Total Consumption
1970-71 .	34·33	1·37	4·47	8·29	48·46
1971-72 .	36·37	1·63	5·01	8·75	51·76
1972-73 .	37·39	1·83	5·92	9·10	54·24
1973-74 .	37·83	1·53	6·31	9·94	55·61
1974-75 .	38·31	1·53	7·76	10·66	58·26
1975-76 .	43·38	1·85	8·72	12·13	66·08
1976-77 .	48·02	2·17	9·62	13·24	73·05
1977-78 .	49·33	2·30	10·11	14·23	75·97
1978-79 .	54·47	2·19	12·03	15·39	84·08
1979-80 .	53·24	2·30	13·45	16·40	85·39
1980-81 .	55·74	2·33	14·41	17·33	89·81
1981-82 .	59·68	2·74	16·23	20·57	99·22

Although power development was initiated in India as early as 1900 with the commissioning of the hydro-electric power station at Shivasamudram in Karnataka, the progress was not impressive till 1947. The installed capacity was as low as 19 lakh kw and activity was mainly concentrated around urban areas. Power generation programmes, however, made phenomenal progress with the advent of Five Year Plans. Power sector is highly capital intensive and investment in this sector constitutes a substantial share of the total plan outlay in the country.

DEVELOPMENT UNDER PLANS

During the First Plan, construction of number of major river valley projects like Bhakra Nangal, Damodar Valley, Hirakud and Chambal Valley was taken up. These projects resulted in the stepping up of power generation. At the end of First Plan, the generation capacity stood at 34.2 lakh kw.

The emphasis in the Second Plan was on the development of basic and heavy industries, and the related need to step up power generation. The installed capacity at the end of the Second Plan reached 57 lakh kw.

During the Third Plan, the emphasis was on extending power supply to rural areas. A significant development in this phase was the emergence of inter-state grid system. The country was divided into five regions to promote power development on a regional basis. A regional electricity board was established in each region to promote integrated operation of the constituent power system.

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The three Annual Plans that followed the Third Plan aimed at consolidating the programmes initiated during the Third Plan.

The Fourth Plan envisaged the need for Central participation in expansion of power generation programmes at strategic locations to supplement the activities in the state sector.

The progress during the period covering the Third Plan, the three Annual Plans and the Fourth Plan was substantial with installed capacity rising to 184.6 lakh kw comprising 69.7 lakh kw from hydro-electric projects, 108.5 lakh kw from thermal power projects and the balance of 6.4 lakh kw from nuclear plants. The installed capacity in the country by the end of 1979-80 was 28,447 mw.

The capacity added during 1980-81 and 1981-82 was 1,823 mw and 2,175 mw respectively. A capacity of 3,060 mw has been added during 1982-83. A capacity of 14,000 mw is expected to be added during the Sixth Plan period against the target of 19,666 mw. A large number of projects are at present at various stages of construction and these would give benefits in different time horizons.

ORGANISATION

The subject 'Power' appears in the concurrent list of the Constitution of India and as such the responsibility for its development lies both with the Central Government and the state governments. In the Central Government, the Department of Power is responsible for the development of electric energy and policies relating to generation, transmission, distribution and conservation. The Department also coordinates matter relating to energy policy. The Department is responsible for legislation on electricity and administers the Electricity (Supply) Act, 1910. The Electricity (Supply) Act, 1948 forms the basis of the administrative structure of the electricity industry. The Act provided for setting up of a Central Electricity Authority (CEA) with responsibility, *inter-alia,* to develop a national power policy and to coordinate the activities of the various agencies and State Electricity Boards. The Act was amended in 1976 to enlarge the scope and functions of the CEA and to enable creation of companies for generation of electricity.

Central Electricity Authority

The CEA advises the Department of Power on matters concerning power. Its main functions are developing a national power policy, formulation and coordination of plans for power development, techno-economic appraisals of projects, monitoring the implementation of the projects, ensuring efficient performance of the power projects, investigation of power projects, arbitration in certain matters, promotions and coordination of research and design activities in the power field, providing assistance to state governments and State Electricity Boards, collection and publication of statistical information relating to power supply industry and design and consultancy services.

The Department of Power controls the Central Sector Power Corporations *viz.* National Thermal Power Corporation (NTPC), National Hydro-electric Power Corporation (NHPC), North-Eastern Electric Power Corporation (NEEPCO), Rural Electrification Corporation (REC) and statutory bodies namely, Damodar Valley Corporation (DVC), Bhakra Beas Management Board (BBMB); construction agencies like National Projects Construction Corporation and Beas Construction Board and research and training organisations like Power Engineers Training Society (PETS) and Central Power Research Institute (CPRI).

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Hydro

The first systematic assessment of the country's economic hydro potential was conducted by Central Water and Power Commission during 1953-58, when the total economically exploitable potential was placed at nearly 2.5 crore kw continuous to be generated by 260 hydro schemes. In view of the technological advancement and changed conditions in power systems, a reassessment of the country's hydro potential is being carried out by CEA and a quick preliminary assessment places the country's hydro potential at around 75,000 mw at 60 per cent load factor with an annual energy potential around 400 TWH (Trillion watt hour). Emphasis is being laid on a continuing basis on the development of hydro-electric resources in the country which is renewable source of energy. The state governments have been advised to draw up a plan to identify and take up the development of small hydro-electric projects as part of Revised 20-Point Programme, particularly in remote and hilly locations with a view to reach electricity in the remote hill areas. A number of hydro-electric projects are at an advanced stage of construction, the benefits from which would accrue at different times horizons. During the year, a total number of 114 hydro-electric projects with a capacity of 10,427 mw were examined. A number of micro, mini and small hydro-electric schemes are presently in operation in several parts of the country. Such schemes make use of waters available in perennial hill streams or on the irrigation canals developing small drops available in the canals for power generation to meet small power requirements. This does not involve high costs and extension of existing transmission lines. The hill districts of Uttar Pradesh and parts of Jammu and Kashmir, Himachal Pradesh and Arunachal Pradesh have a large number of such schemes in operation. Presently there are 103 micro/small hydro-electric schemes (upto an installed capacity of 15 mw) under operation which accounts for an aggregate installed capacity of 150 mw. Studies have been undertaken for uprating the generating capacity of the existing hydro-electric units and 84 such units in 20 power stations have been identified for possible uprating. Uprating the units would enable increased power generation with marginal modifications in the existing units at nominal cost.

Therm

There has been a phenomenal growth in power generation by way of installation of coal-based thermal and diesel power houses which contribute about 60 per cent of the electricity generation in the country. By the end of Sixth Plan, the share of thermal capacity is expected to reach 66 per cent of the total capacity in the country. New thermal units are coming up near coal pit-heads and the perspective plan for the period 1985-90 envisages implementation of 50 thermal schemes. Of this, 31 schemes (13,925 mw) have already been approved for investment. As the hydro-generation is dependent on the vagaries of nature, thermal generation plays an important role in providing reliable and continuous sources of power. It, therefore, becomes more important to improve the performance of thermal generating stations and maximising the thermal generation in order to meet the growing power needs. Constant monitoring has resulted in a plant load factor (PLF) of the thermal units getting raised to 53.3 per cent. A few power stations namely, Vijaywada, Parli, Dhuwaran, Trombay and Neyveli achieved PLF exceeding 70 per cent. Roving teams of engineers and experts are finding solutions to the problems to various thermal stations to enable them to achieve peak performance and

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reduce forced outages. Efforts are being made to ensure adequate availability of spare parts and trained operation and maintenance personnel. There has been a sustained effort not only in increasing availability of coal but improving its quality. The aspects of uprating of thermal units is also being examined. In the first instance, uprating in four stations is being taken up namely, Indraprastha Station, Delhi; Obra Thermal Power Station, Uttar Pradesh; Badarpur Thermal Power Station, Delhi and Talcher Power Station, Orissa.

New Sources for Power Development

Besides the conventional sources of power like thermal, nuclear and hydro, the prospects of developing power from such non-conventional sources like geo-thermal energy and tidal energy are being explored. Geo-thermal manifestations occur in several parts of the country in the form of hot springs. Two experimental projects *viz.* one at Parbati Valley in Himachal Pradesh and the other at Puga in Jammu and Kashmir have been undertaken to make a detailed assessment of geo-thermal potential.

Large tidal variations are known to occur in the Gulf of Cambay and the Kachchh on the west coast and the estuary of Ganga on the east coast. A scheme for taking up investigation and studies to establish the feasibility of power generation from tidal waves in the Gulf of Kachchh has been undertaken.

Transmission Lines and Development of Regional Grids

Significant progress has been made in the expansion of transmission and distribution facilities in the country. The total length of transmission lines above 500 volts increased from about 29,000 km at the end of 1950 to 2.9 lakh km in March 1966 and to 9.97 lakh km in March 1980. Of this, the increase in the transmission lines of 66 kv and above was from 8,270 km in December 1950 to 46,000 km in March 1966 to 1.15 lakh km in March 1980. The highest transmission voltage in use at present is 400 kv. In 1980-81, 3,476 km of 220 kv lines and 223 km of 400 kv lines were added. In 1981-82, 2,499 km of 220 kv lines and 244 km of 400 kv lines were further added.

Prior to the Fourth Plan, transmission system in the country was developed more or less as state systems. This is because the generating stations were built primarily in the state sector. When the state transmission systems had developed to some reasonable extent in the Third Plan, the potentiality of integated and inter-connected operation of individual state systems within the regions was thought of. A Centrally sponsored programme of establishing inter-state/regional links was included in the Fourth Plan. Under this programme, loan assistance to cover the entire cost of construction of the inter-state/regional links was provided under the Centrally sponsored schemes-inter-state transmission lines to state governments outside the state plan ceilings. The programme, started in Fourth Plan, is still continuing.

At the beginning of the Fourth Plan, 24 inter-state and seven inter-regional lines of 110 kv and above with a total length of 4,151 ckt (circuit) km were existing. Forty-four inter-state and inter-regional transmission lines have been sanctioned from April 1966 to March 1982. Out of these 34 lines with a total length of 4,433 ckt km had been completed up to March 1983.

India has now well integrated regional power systems. Exchange of power is taking place regularly between a large number of state systems and this greatly facilitates better utilization of the existing capacity. During 1981-82, 65,000 lakh units were exchanged among the various states/systems.

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REGIONAL ELECTRICITY BOARDS

Regional Electricity Boards were set up in 1964 in each of the five regions for the development of integrated operation initially between the states of the region with the ultimate aim of forming a well-knit national grid. The five Regional Electricity Boards are : Northern Regional Electricity Board covering Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Chandigarh and Delhi; Western Regional Electricity Board covering Gujarat, Madhya Pradesh, Maharashtra, Goa, Daman and Diu and Dadra and Nagar Haveli; Southern Regional Electricity Board covering Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Pondicherry; Eastern Regional Electricity Board covering Bihar, Orissa, West Bengal and Sikkim and North-Eastern Regional Electricity Board covering Assam, Manipur, Meghalaya, Nagaland, Tripura, Arunachal Pradesh and Mizoram.

Regional Load Despatch Centres (RLDC), which are being established, will coordinate the activities of State Load Despatch Centres in the regions so as to ensure optimum utilisation of the generation and transmission facilities in the regions. These centres would be equipped with computer based telemetry, data processing and load frequency control equipment and live system diagram board to depict changing system conditions.

Interim Regional Load Despatch Centres have been established in the Fifth Plan in order to develop the operational procedures, collect operating data, etc., in all the five regions. The setting up of permanent load despatch centres with on-line computer equipment is in active progress in the Northern Region at Delhi, Western Region at Bombay and Eastern Region at Calcutta. In the case of the Southern Region, Phase 1 of the RLDC project has been completed and the Despatch Centre has been functioning at Bangalore.

State Electricity Boards

State Electricity Boards have been established in 18 out of the 22 states and they are mainly responsible for generation and distribution of electricity in their respective states. Manipur, Tripura, Sikkim and Nagaland are yet to establish their Electricity Boards. The Electricity (Supply) Act, 1948 was amended in October 1976, which *inter-alia* assigned a larger role to the Central Electricity Authority particularly in the preparation of national power plans and provided for establishment of Central or state generating companies.

INTERNATIONAL COOPERATION

India has been cooperating with neighbouring countries in the field of power development.

The cooperation between India and Nepal in the field of power development has been varied and significant. India has financed and constructed the 21 mw hydro-electric project at Trisuli, one of the important sources of power supply in Nepal. The Devighat Hydro-electric Project with an installed capacity of 14.1 mw is a tailrace project of the Trisuli Hydro-electric project and is under construction by National Hydro-electric Power Corporation. Multi-purpose developments in the Gandak and Kosi basins have been taken up for mutual benefit under agreements between the two countries. The Gandak Project includes a 15 mw power station. A 20 mw hydel station is included under the Kosi Project. Three units of 5 mw at this power station have already been commissioned. Financed and constructed by India, the benefits from this project would be shared between the two countries. There is an agreement under which power is being exchanged between

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Nepal and India at border points, mainly to supply electricity to isolated villages.

A major step in Indo-Bhutan Cooperation in the field of power was taken with the signing of an agreement in 1974 for the implementation of the Chukha Hydro-Electric Project with an installed capacity of 336 mw (4×84 mw). The project will be implemented by Bhutan and funded by India. The power generated will first be used to meet the needs of Bhutan and the surplus power will be bought by India. India has been providing assistance to Bhutan in establishing micro-hydel stations and associated distribution facilities. The foot-hill towns of Phuntsholing and Samchi in Bhutan receive power from Jaldhaka Project located on the border between India and Bhutan, which has been developed under an agreement between the two countries for mutual benefit.

India and Bangladesh have constituted a joint-power co-ordination board to maintain liaison between the two countries and identify areas of cooperation in the field of power.

India has assisted Afghanistan in the construction and commissioning of the first stage of the Chardeh-Ghorband Project (3×100 kw). Recently, India agreed to supply generating and transmission equipment for the second stage extension of the Chardeh-Ghorband project (1×100 kw) and Banain (3×250 kw), Faizabad (3×85 kw) and Khulm (2×100 kw) micro-hydel projects.

PERFORMANCE OF POWER SECTOR

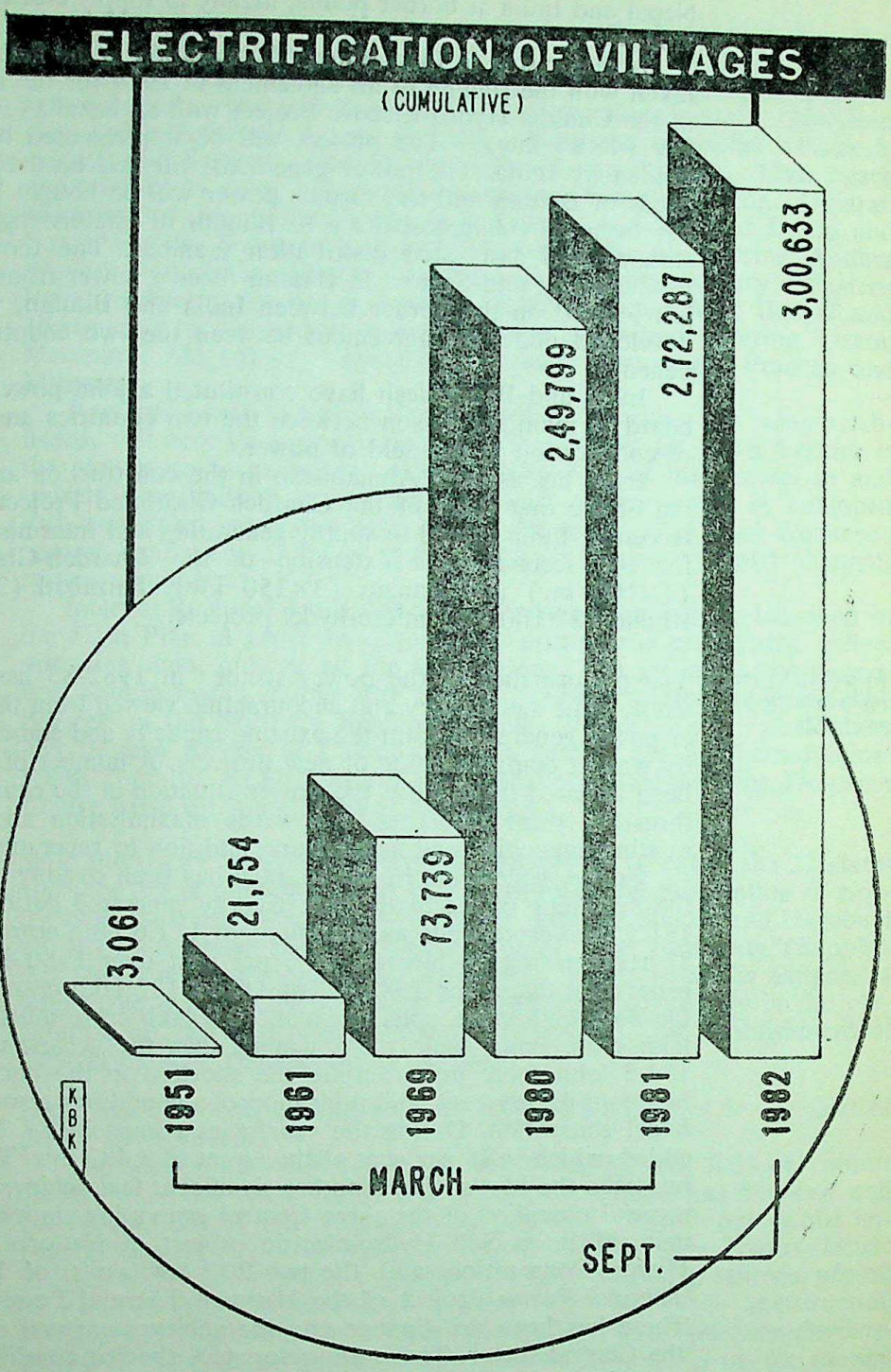
The performance of the power sector in 1982-83 has been on the whole quite satisfactory and encouraging, viewed from the point of view of power generation from the existing capacity and additions to capacity by way of commissioning of new projects. A number of measures have been initiated to improve the power situation in the country. The main thrust of these measures is towards maximisation and utilisation of existing capacities and accelerating addition to generating capacities.

Energy generation in the country has been steadily improving since the beginning of the Sixth Plan. Energy generated during 1982-83 was 131.5 lakh crore units as compared to 111.6 lakh crore units in 1981-82 representing an increase of 7 per cent over 1980-81. The energy generation target for 1982-83 was fixed 132 lakh crore units comprising 80.5 lakh crore units thermal, 40.0 lakh crore units hydro and 3.5 lakh crore units nuclear. As against this, the achievement has been 131.5 lakh crore units despite the shortfall in the nuclear generation by about 42 per cent, and poor monsoon conditions resulting in reduced hydel generation. During the year, a new capacity of 3,060 mw was added, which is 88 per cent of the target of 3,482 mw. The achievement has been the best so far. Another significant feat achieved was the commercial operation of the three Central generating stations *viz.* the three units of Baira Suil Hydro-electric project of National Hydro-electric Power Corporation and the two 200 mw units of Singrauli Super Thermal Power Project of the National Thermal Power Corporation. There has been no slippage and the achievement was cent per cent in the Central sector. The state sector, too, showed considerable improvement in as much as the overall gestation period of thermal plants was reduced.

In the field of rural electrification and energisation of pumpsets which was closely monitored under the Revised 20-Point Programme, the achievements were in no way insignificant. A total of 22,185 villages were electrified during the year which is 78 per cent of the

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target of 25,512 villages. Out of 5.76 lakh villages in the country about 3.12 lakh constituting 52.2 per cent had been electrified by February 1983 covering 71.2 per cent of the rural population. The pumpsets energised during 1982-83 were 3,17,729 against the target of 4,23,034. The total number of agricultural pumpsets has risen to over 49 lakhs.

POWER CORPORATIONS

The National Thermal Power Corporation (NTPC) was incorporated in November 1975 as a public sector undertaking with the main objective of planning, promoting and organising the integrated development of thermal power in the country. The Corporation has been entrusted with the task of execution and operation of large pit-head thermal power stations and associated transmission networks. The authorised share capital of the Corporation is Rs 1,500 crore.

NTPC is presently setting up six super thermal power stations within accrued capacity of 9,060 mw at Singrauli (Uttar Pradesh), Korba (Madhya Pradesh), Ramagundam (Andhra Pradesh), Farakka (West Bengal), Vindhyachal (Madhya Pradesh) and Rihand (Uttar Pradesh) and 8,747 circuit km of associated 400 kv transmission lines at an accrued investment of Rs 5,723.09 crore. The first four projects at Singrauli, Korba, Ramagundam and Farakka are being set up with World Bank assistance and are at advanced stages of construction. Two units of 200 mw at Singrauli and one unit of 200 mw at Korba have been commissioned. NTPC is also operating the Badarpur Thermal Power Station at Delhi since 1978 which has an installed capacity of 720 mw.

The National Hydro-electric Power Corporation (NHPC) was registered in November 1975 with the main objectives of planning, promoting and organising an integrated hydro-electric power and to take up construction of Central sector hydro-electric projects, inter-state transmission lines and ancillary works. The Corporation has presently an authorised capital of Rs 400 crore. NHPC is engaged in the execution of Baira Suil Hydro-electric Project (Himachal Pradesh), Loktak Hydro-electric Project (Manipur), Salal Hydro-electric Project (Jammu and Kashmir), and Devi Ghat Hydro-electric Project (Nepal) with a total capacity of 644.1 mw. While Baira Suil Hydro-electric project with three units of 60 mw each has been commissioned with commercial operation in April 1982, Loktak Project is expected to be commissioned soon.

The National Projects Construction Corporation was set up in 1957 as a joint venture of the Central and state governments as a construction contract agency for the execution of multi-purpose river valley projects, power projects and other heavy engineering projects. The Corporation has already executed works worth Rs 280 crore, some of which are located in remote areas and abroad. They have presently work order to the tune of Rs 300 crore. The Corporation is now engaged in 42 works in India and 5 works abroad.

The Rural Electrification Corporation (REC) was set up as a public sector corporation in July 1969 with the objective of promoting rural electrification through financing rural electrification schemes and promoting and financing rural electric cooperatives in the states. The authorised share capital of the Corporation is Rs 150 crore with the paid up capital at Rs 120 crore. Up to the end of December 1982 318 schemes with a financial outlay of Rs 17.01 crore had been sanctioned which envisage extension of electricity to additional 16,555

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harijan bastis of which 8,955 *harijan bastis* have been electrified.

The North Eastern Electric Power Corporation (NEEPCO), registered in April 1976, provides and promotes an integrated system of power in north eastern region and formulates and recommends to the Central Government through the North Eastern Council, a regional policy for development of power in north eastern region. The major projects under execution is Kopili Hydro-electric Project with an installed capacity of 150 mw, the funds for which are provided by Central Government to NEC.

The Damodar Valley Corporation (DVC) was established in 1948 under an Act of Parliament for the unified development of Damodar Valley covering an area of 24,235 sq km in Bihar and West Bengal. The functions of the Corporation are control of floods, irrigation and generation and transmission of power and include activities like navigation, soil conservation, promotion of public health, agricultural, industrial and economic development of the valley. The Corporation has three thermal power stations at Bokaro, Chandrapura and Durgapur with a total installed capacity (derated) of 1,467.5 mw and multipurpose dams at Tilaiya, Panchet and Maithon with a capacity of 104 mw. The work on three thermal units of 210 mw each at Bokaro and one 40 mw turbine units at Panchet is in progress.

Consequent on the re-organisation of the erstwhile state of Punjab in 1966, the management of Bhakra Project and the construction of Beas Project were entrusted to Bhakra Management Board (BMB) and Beas Construction Board (BCB) respectively under the Punjab Reorganisation Act, 1966. As provided in the Act, consequent on the completion of certain works of the Beas Project, the Bhakra Beas Management Board (BBMB) came into being to take over management of the works formerly managed by the BMB and the works completed at the Beas Project. The BCB is continuing work on Stage II of the Beas Project, which comprises additions of two units of 165 mw each at Dehar and two units of 60 mw each at Pong . The total installed capacity of Beas Project is 1,020 mw comprising 4×165 mw at Dehar and 6 × 60 mw at Pong. The Bhakra Nangal Project has an installed capacity of 1,355 mw, comprising 600 mw which has been uprated to 660 mw at Bhakra Right Bank Power Plant, 450 mw which has been uprated to 540 mw at Bhakra Left Bank Power Plant, and 77.5 mw each at Ganguwal Power House and Kotla Power House.

The Central Power Research Institute (CPRI) was established by the Government of India in 1960 for carrying out research and development in the field of electrical power engineering. CPRI was made an autonomous society in 1978. It is also the national testing authority for certification of electrical equipment for supply utilities and power equipment industries.

The Power Engineers Training Institute (PETS) was set up in 1980 as an apex national body for meeting training requirements in the power sector. It has four Regional Training Institutes at Neyveli, Durgapur, Badarpur and Nagpur and runs a number of regular and short-term courses. A Power Systems Training Institute and Hot Line Training Centre have also been established in Bangalore to train engineers in the operation of power systems and load despatch techniques and maintenance of transmission lines.

MAJOR POWER PROJECTS

The details of major thermal power stations with generating capacity are given in table 17.2. The details of the major nuclear power stations

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with generating capacity are given in table 17.3. The details of major hydro power stations with generating capacity are given in table 17.4. The details of generating units commissioned during 1981-82 are given in table 17.5.

TABLE 17·2 MAJOR POWER PROJECTS (THERMAL)

Region/State	Station	Capacity (MW)	
		Installed	Derated
NORTHERN REGION			
Delhi	Badarpur	510·0	510·0
	Indraprastha	284·1	282·2
	Rajghat	59·6	28·0
Haryana	Faridabad (Extension)	120·0	120·0
	Panipat	220·0	220·0
	Faridabad	15·0	15·0
	Surajpur	6·8	5·0
Jammu and Kashmir	Kalakote	22·5	22·5
Punjab	Bhatinda	440·0	440·0
Uttar Pradesh	Obra (Thermal)	250·0	250·0
	Obra (Extension 1-3)	300·0	300·0
	Obra (Extension 4-6)	600·0	600·0
	Harduaganj B	220·0	200·0
	Harduaganj A	90·0	90·0
	Harduaganj C	60·0	60·0
	Harduaganj St. V-I	110·0	110·0
	Renusagar	125·0	125·0
	Panki Extension	220·0	220·0
	Riverside Power House (Kanpur)	75·0	65·0
	Panki	64·0	61·0
	Others	146·6	131·0
	Total for the Region	3,938·6	3,875·0
WESTERN REGION			
Gujarat	Dhuvaran (Thermal)	534·0	534·0
	Ahmedabad Electric Co.	217·5	192·5
	Ukai 1-2	240·0	240·0
	Ukai 3-4	400·0	400·0
	Gandhinagar	240·0	240·0
	Sabarmati Extension	110·0	110·0
	Uttran	67·5	61·0
	Others	142·0	116·5
Madhya Pradesh	Satpura 1-5	312·5	312·5
	Satpura-6	200·0	200·0
	Satpura-7	210·0	210·0
	Korba-II	200·0	200·0
	Korba-III	120·0	120·0
	Korba-I	100·0	100·0
	Amarkantak Extension	240·0	240·0
	Amarkantak	60·0	60·0
	Others	32·0	20·0
Maharashtra	Koradi 1—4	480·0	480·0
	Koradi-5	200·0	200·0
	Trombay	337·5	330·0
	Nasik 1—2	280·0	280·0
	Nasik-3	210·0	210·0
	Nasik-4	210·0	210·0
	Khaperkheda	90·0	90·0
	Paras	92·5	92·5
	Bhusawal—1	62·5	62·5
	Bhusawal—2	210·0	210·0
	Chola	96·0	40.0
	Parlia 1—2	60·0	60.0
	Parlia—3	210·0	210.0
	Ballarshah	22·5	18.0
	Total for the Region	5,986·5	5,849.5

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1	2	3	4
SOUTHERN REGION			
Andhra Pradesh	Kothagudem A	240·0	240·0
	Kothagudem B	220·0	220·0
	Kothagudem C	220·0	220·0
	Vijaywada	420·0	420·0
	Ramagundam B	62·5	62·5
	Ramagundam A	37·5	20·0
	Nellore	30·0	30·0
	Hussain Sagar	12·5	10·0
	Others	20·0	20·0
Tamil Nadu	Neyveli	600·0	600·0
	Ennore	450·0	450·0
	Tuticorin	210·0	210·0
	Basin Bridge	90·0	90·0
	Total for the Region	2,612·5	2,592·5
EASTERN REGION			
Bihar	Patratu	620·0	620·0
	Barauni	145·0	145·0
Damodar Valley Corporation	Chandrapura	780·0	780·0
	Durgapur	290·0	250·0
	Bokaro	247·5	227·5
Orissa	Talcher	250·0	250·0
West Bengal	Calcutta Electric SupplyCorporation	412·5	328·0
	Bandel	330·0	320·0
	Durgapur Projects	285·0	280·0
	Santaldih	360·0	360·0
	Others	135·0	128·0
	Total for the Region	3,855·0	3,688·5
NORTH EASTERN REGION			
Assam	Kamrup	111·5	111·5
	Chandrapur	30·0	30·0
	Total for the Region	141·5	141·5
	Grand Total for Thermal	16,534.1	16,147·0

TABLE 17·3 MAJOR POWER PROJECTS (NUCLEAR)

State	Station	Capacity MW	
		Installed	Derated
Maharashtra	Tarapur Atomic Power Station	420·0	420·0
Rajasthan	Rajasthan Atomic Power Station	440·0	440·0
	Total for Nuclear	860·0	860·0

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TABLE 17·4
MAJOR POWER PROJECTS (HYDRO)

1	2	3	4
NORTHERN REGION			
Bhakra Beas Management Board	Bhakra Right	600·0	600·0
	Bhakra Left	450·0	450·0
	Ganguwal	77·5	77·5
	Kotla	77·5	77·5
Beas Construction Board	Dehar	660·0	660·0
	Pong	240·0	240·0
Himachal Pradesh	Giri Bata	60·0	60·0
	Bassi	45·0	45·0
	Baira Suil	120·10	120·0
Jammu and Kashmir	Lower Jhelum	105·0	105·0
	Salal Hydel	71·4	70·0
Rajasthan	Rana Pratap Sagar	172·0	172·0
	Jawahar Sagar	99·0	99·0
Punjab	Shanan	51·0	43·0
	Upper Bari Doab Canal	45·0	45·0
Uttar Pradesh	Rihand	300·0	300·0
	Yamuna Stage II	240·0	240·0
	Yamuna Stage I and IV	114·8	114·8
	Chilla	108·0	108·0
	Obra	99·0	99·0
	Ganga Canal	45·2	45·2
	Khatima	41·4	41·4
	Matatila	30·0	30·0
	Ramganga	198·0	198·0
	Total for the Region	4,049·8	4,040·4
WESTERN REGION			
Gujarat	Ukai	300·0	300·0
Madhya Pradesh	Gandhi Sagar	115·0	115·0
Maharashtra	Koyna	880·0	880·0
	Tata	276·0	276·0
	Vaiterna	60·0	60·0
	Others	47·5	47·5
	Total for the Region	1,678·5	1,678·5
SOUTHERN REGION			
Andhra Pradesh	Lower Sileru	400·0	400·0
	Upper Sileru	120·0	120·0
	Machkund	114·7	114·7
	Nagarjuna Sagar	210·0	210·0
	Tungbhadra Dam	72·0	72·0
	Nizam Sagar	10·0	10·0
Karnataka	Sharavathy	891·0	891·0
	Kalinadi	270·0	270·0
	Jog	120·0	120·0
	Bhadra	33·2	33·2
	Shivasmudram	42·0	30·0
	Shimshapura	17·2	16·0
	Munirabad	27·0	27·0
	Lingnamakki	55·0	55·0

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(1)	(2)	(3)	(4)
Kerala	Idukki	390·0	390·0
	Sabarigiri	300·0	300·0
	Kuttiady	75·0	75·0
	Sholayar	54·0	54·0
	Sengulam	48·0	48·0
	Neriamanglam	45·0	45·0
	Pallivasal	37·5	37·5
	Poringal	32·0	32·0
	Panniar	30·0	30·0
Tamil Nadu	Kundah I to V	535·0	535·0
	Mettur	240·0	240·0
	Periyar	140·0	140·0
	Kodayar 1 and 2	100·0	100·0
	Sholayar 1 and 2	95·0	95·0
	Pykara	70·0	70·0
	Aliyar	60·0	60·0
	Sarkarpathy	30·0	30·0
	Moyar	36·0	36·0
	Suruliyar	35·0	35·0
	Papanasam	28·0	28·0
	Total for the Region	4,762·6	4,749·4
EASTERN REGION			
Bihar	Kosi	15·0	15·0
	Subernarekha	130·0	130·0
Damodar Valley Corporation	Maithon	60·0	60·0
	Panchet	40·0	40·0
	Tilaiya	4·0	4·0
Orissa	Balimela	360·0	360·0
	Hirakud	270·0	270·0
West Bengal	Small Stations	33·0	33·0
Sikkim	Lower Lagyap	12·0	12·0
	Total for the Region	924·0	924·0
NORTH EASTERN REGION			
Meghalaya	Kyrdemkulai	60·0	60·0
	Small Stations	65·2	65·2
Tripura } **Nagaland** }	Small Stations	11·5	11·5
	Total for the Region	136·7	136·7
	Grand Total for Hydro	11,551·6	11,529·0

TABLE 17·5 GENERATING UNITS COMMISSIONED DURING 1981-82

Sl. No.	Name of the Project/ Particulars of Unit	State	Capacity (mw)	Date of commissioning
(1)	(2)	(3)	(4)	(5)
NORTHERN REGION				
Hydro				
1.	Shanan Extension . .	Punjab	50	31 March 1982
2.	Baira Suil Unit-3 . .	Central	60	3 September 1981
		Sub-Total	110	

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(2)	(3	(4)	(5)
Thermal			
3. Badarpur Unit-5 . .	Central	210	25 December 1981
4. Singrauli STPS Unit-1 .	Central	210	14 February 1982
	Sub-Total	420	
	Total (Northern Region)	530	
WESTERN REGION			
Hydro		NIL	
Thermal (Steam)			
5. Wanakbori Unit-1 . .	Gujarat	210	23 March 1982
6. Koradi Stage-III, Unit-6 .	Maharashtra	210	30 March 1982
	Sub-Total	420	
Gas			
7. Uran Gas Turbine Unit-1	Maharashtra	60	20 February 1982
8. Uran Gas Turbine Unit-2	Maharashtra	60	29 March 1982
	Sub-Total	120	
	Total (Western Region)	540	
SOUTHERN REGION			
Hydro			
9. Kalinadi Stage I Unit-3 .	Karnataka	135	10 September 1981
10. Kalinadi Stage I Unit-4 .	Karnataka	135	15 March 1982
	Sub-Total	270	
Thermal		NIL	
	Total (Southern Region)	270	
EASTERN REGION			
Hydro		NIL	
Thermal			
11. Durgapur Unit-4 . .	Damodar Valley Corporation	210	5 December 1981
12. Talcher Unit-5 . .	Orissa	110	24 March 1982
	Sub-Total	320	
	Total (Eastern Region)	320	
NORTH-EASTERN REGION			
Hydro		NIL	
Thermal (Steam)			
13. Bongaigaon Unit-2 . .	Assam	60	21 March 1982
	Sub-Total	60	

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(1)	(2)	(3)	(4)	(5)
Gas				
14.	Lakwa Gas Turbine Unit-1	Assam	15	27 April 1981
15.	Lakwa Gas Turbine Unit-2	Assam	15	2 August 1981
16.	Mobile Gas Turbine Unit-3	Assam	3	May 1981
17. &18.	Mobile Gas Turbine Units 4 and 5	Assam	6	15 March 1982
19. &20.	Mobile Gas Turbine Units 6 and 7	Assam	6	23 March 1982
		Sub-Total	45	
	Total	Hydro (4 Units)	380	
		Thermal (Steam) (7 Units)	1220	
		Thermal (Gas) (9 Units)	165	
			1,765	

COAL

Coal has been recognised as the backbone of our energy resources. The energy requirements of the country are being met to a large extent by generation of electricity based on the use of coal. Coal production during 1980-81 was 11.4 crore tonnes and the production during 1981-82 further increased to 12.49 crore tonnes. Coal production in 1982-83 was 13.06 crore tonnes (provisional). The target of coal production for 1983-84 has been fixed at 14.2 crore tonnes.

During 1982-83, ten coal mining projects were sanctioned by the Government for Coal India Ltd., for a total production of 1,580 lakh tonnes per year at a capital cost of Rs 783.5 crore. In addition to these, 3 revised estimates for coal projects were sanctioned relating to production of 50 lakh tonnes per year and at a capital cost of Rs 249 crore.

Besides, Coal India Ltd., and its subsidiaries have sanctioned smaller projects within their own delegated powers. Two projects were sanctioned for Singareni Collieries Co. Ltd., for a production of 10 lakh tonnes per year at an investment of Rs 19.88 crore.

Reports of Fuel Policy Committee and the Working Group on Energy Policy

A comprehensive analysis of the energy sector was made by the Fuel Policy Committee (FPC). It submitted its report in August 1974. For the first time the need for a coordinated approach to the development and supply of various sources of energy and the need for formulation of a comprehensive energy policy was stressed in the report. The approach of the Government in the energy sector is guided by this report. There were several important developments in the energy sector at home and abroad since the submission of the FPC report. This necessitated a fresh assessment of the situation. A Working Group was set up on energy policy which submitted its report in November 1980, and its report indicates that the available reserves of coal would be adequate to last for about 90 years after 2000 AD, assuring that the annual coal production would reach a level of 40 crore tonnes by then and continue at that level beyond 2000 AD. This estimate is also based on the reserves of coal in seams of thickness of 1.2 metre and more and up to a depth of 600 metres. The recovery

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rate has been assumed to be equal to 50 per cent of the total reserves. If the additional reserves occurring at depth between 600 metres and 1,200 metres and seam thickness between 0.5 metre and 1.2 metre and also the fact that more open cast mines and long wall faces are going into operation are taken into consideration, the life of the reserves may extend by another 60 years.

This highlights the urgency of going in for scientific mining with proper conservation measures for optimum utilisation of coal resources. Necessary follow up action is being taken to ensure increased recovery of coal.

Coal Mining

Coal mining was first started at Raniganj, West Bengal, in 1774. After Independence, coal mining was stepped up and production has already risen from 3.2 crore tonnes in 1950 to well over 12 crore tonnes now.

Government nationalised the coking coal mines in 1972 and the non-coking coal mines the following year. As a result, the production of coal in the country is now almost completely in the public sector. The only important mine which has not been nationalised is the captive coking coal mine of a private sector steel company.

The production of coal in public sector is organised mainly by Coal India Ltd., through its subsidiary companies. These are Eastern Coalfields Ltd., Bharat Coking Coal Ltd., Central Coalfields Ltd., and Western Coalfields Ltd. The Central Mine Planning and Design Institute is engaged in the designing of projects in both coal and non-coal sectors. The Singareni Collieries Co. Ltd., a joint public sector undertaking of the Government of India and the Andhra Pradesh Government is also engaged in coal production.

Coal Washeries

Fifteen coal washeries are operating for the beneficiation of coking coal. There is also a small washery for beneficiation of non-coking coal at Nowrozabad, Madhya Pradesh. A medium coking coal washery at Nandan, Chhindwara district, Madhya Pradesh, with an estimated capacity of 12 lakh tonnes was sanctioned in November 1981. During 1982-83, construction was completed at two more washeries—Moonidih and Barora.

Conservation

The work relating to conservation and safety in coal mines is being undertaken directly by the coal companies under the direction of Coal Conservation and Development Advisory Committee constituted under the Coal Mines (Conservation and Development) Rules, 1975.

Lignite

Lignite, though inferior in calorific value (one tonne of Gondwana coal equals about 2 tonnes of lignite), is particularly important to western and southern regions due to the geographical location of the deposits and the absence of coal in these regions. Out of a total reserve of lignite in the country, about 3.3 crore tonnes are available in the Neyveli, Tamil Nadu, area alone.

The integrated lignite project at Neyveli was set up during the Second Plan for mining of lignite. The capacity of the project is being increased in the first instance to 45 lakh tonnes and ultimately to 65 lakh tonnes from the present production of 35 lakh tonnes. In February 1978, the Government sanctioned opening of a second mine

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with an annual capacity of 47 lakh tonnes per annum at an estimated cost of Rs 144 crore and a second thermal power station with a capacity of 630 mw at an estimated cost of Rs 214 crore. The cost of these projects has since been revised to Rs 334.77 crore and Rs 638.95 crore respectively.

The quantity of lignite produced from 1976-77 to 1981-82 is given in table 17.6.

TABLE 17·6 PRODUCTION OF LIGNITE

Year	Quantity (lakh tonnes)
1976-77	40·20
1977-78	35·80
1978-79	33·00
1979-80	28·97
1980-81	48·01
1981-82	58·76
1982-83	64·08

OIL

Petroleum industry in India has made headway only after Independence. Starting from a modest level of indigenous crude production of around 2.5 lakh tonnes and consumption of 34 lakh tonnes in 1950-51, crude oil production during 1981-82 was 1.62 crore tonnes and the consumption level around 3.25 crore tonnes. About 1.53 crore tonnes of crude oil and 48.84 lakh tonnes of petroleum products were imported to meet the country's requirement in 1981-82. The refinery throughput during 1981-82 stood at 3.01 crore tonnes.

The oil industry in India is divided into three broad segments—(i) oil exploration and production; (ii) refinery and marketing; and (iii) petrochemical and downstream units.

Exploration and Production

There are two principal organisations which are engaged in the exploration and production of crude oil in the country. They are the Oil and Natural Gas Commission (ONGC), wholly owned by the Government of India, and Oil India Ltd. (OIL), which became a wholly owned Government enterprise from 14 October 1981 when Government acquired 50 per cent equity shares of the Burmah Oil Company Ltd.

The exploration work of the erstwhile Assam Oil Company has been transferred to OIL, while the business of production, marketing and distribution of petroleum products of that company has been transferred to Indian Oil Corporation.

Oil and Natural Gas Commission

ONGC, set up in 1956, is the principal agency engaged in exploration and production of hydrocarbons in the country. During 1981-82, ONGC produced 131.75 lakh tonnes of crude oil and supplied 12.5 lakh cubic metres of natural gas. The corresponding figures for 1982-83 (provisional) are 182.33 lakh tonnes of crude oil and 185.789 crore cubic metres of natural gas. Crude oil production of ONGC has thus increased by 40 per cent in 1982-83 as compared to the production in 1981-82.

During 1982-83, ONGC carried out exploratory drilling in a number of new structures, both onshore and offshore. The year's activities were marked by discovery of hydrocarbons in the Ognaj and Modhera

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structures in the onshore Western Region and in R-13 and D-12 structures in the Western offshore area.

The implementation of the accelerated development plan of Bombay High and satellite offshore fields proceeded smoothly during 1982-83. With a view to ensure a long-term strategy of exploration, ONGC has drawn up a perspective plan for the period up to 1990. The strategy and the schemes that have been formulated under this plan are at present under examination by the Government.

In the field of import substitution and conservation of foreign exchange, ONGC have launched an extensive effort to identify items which would be considered for indigenisation. Efforts are also being made to ensure indigenous fabrication and supply of equipment so identified.

Oil India

In 1982-83, Oil India Ltd., a public sector enterprise engaged in the exploration, drilling and production of crude oil and natural gas and in the delivery of such oil and gas to designated refineries and consumers continued its oil field activities in its areas of operation.

The Company drilled 14+7 P wells totalling to 59,861 metres in its Assam Mining Leases and in the Ningru Petroleum Exploration Licence area in Arunachal Pradesh. Crude oil production was 28.5 lakh tonnes. Crude oil deliveries to the refineries from OIL and ONGC oilfields in Upper Assam to the refineries through OIL's pipelines was 49.5 lakh tonnes of which OIL's contribution was about 28.1 lakh tonnes.

Gas sales amounted to 59.65 crore standard cubic metres. Main customers were the Assam Gas Company (a Government of Assam undertaking) and, through them, some Namrup-based industrial units : Hindustan Fertilizer Corporation Ltd., Assam State Electricity Board, and Assam Petrochemicals Ltd., relatively minor qualities were supplied to tea garden grids.

During the year, the LPG plant was commissioned and the first trucks carrying LPG cylinders started moving out of Duliajan on 15 August 1982.

OIL continued its exploratory activities during the year in Orissa in the Bay Exploration Project area. On-shore seismic surveys were vigorously pursued through a contractual arrangement with Geophysical Services Inc. of the USA; off-shore, a drilling rig named *Azteca* was chartered from Mexico's state-owned Protexa Group of Companies. This arrived at site in March 1983 for a 6-well drilling programme.

OIL has also set up a Rajasthan Project Cell at Jodhpur to initiate exploratory activities in the Rajasthan Concession area of 28,600 sq km.

REFINERIES

There are at present 12 refineries. All the refineries are in public sector. The refineries processed 301.4 lakh tonnes of crude during 198-82. This includes the new refinery at Mathura which went on trial production from January 1982.

The Burmah-Shell Refinery at Trombay and Caltex Refinery at Visakhapatnam together with their marketing associates were taken over by the Government in 1976. The Burmah Shell Refinery was renamed as Bharat Petroleum Corporation Ltd. (BPCL), and the Caltex Oil Refinery (India) Ltd. was amalgamated with the Hindustan Petroleum Corporation Ltd. (HPCL), in May 1978. The public sector

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refineries at Guwahati, Barauni, Koyali, Haldia, Digboi and Mathura are owned by the Indian Oil Corporation Ltd. (IOC), while those at Cochin and Madras are owned by joint sector companies. Refinery-wise details of the years of commencement of production, their present capacities and actual crude throughput during 1979-80, 1980-81, and 1981-82 are given in the table 17.7.

TABLE 17·7
CAPACITY AND PRODUCTION OF REFINERIES

Name of Refinery	Production Commenced	Capacity (million tonnes) April 1982	Actual throughput (million tonnes) 1979-80	1980-81	1981-82
IOC, Barauni . .	1964	3·30	2·28	·50	3·03
BPCL, Bombay . .	1955	5·25	4·82	4·87	4·99
CRL, Cochin . .	1966	3·30	2·87	2·92	3·12
AOC, Digboi . .	1901	·50	·40	·50	·50
IOC, Guwahati . .	1962	·85	·64	·64	·75
IOC, Haldia . . .	1975	2·50	2·49	2·31	2·28
HPCL, Bombay . .	1954	3·50	3·13	3·11	3·48
HPCL, Visakhapatnam .	1957	1·50	1·09	1·32	1·18
IOC, Koyali . . .	1965	7·30	6·70	6·97	7·04
MRL, Madras . .	1969	2·80	2·82	2·61	2·80
BRPL, Bongaigaon . .	1979	1·00	·19	·05	·45
IOC, Mathura . .	1982	4·86	—	—	·52

Refinery Projects

A number of refinery expansion and modernisation projects presently under implementation, are expected to be completed by 1984-85. These are :

(i) 42 lakh tonnes per annum expansion (to achieve a refining capacity of 45 lakh tonnes per annum) and 10 lakh tonnes per annum fluid catalytic cracking unit in Cochin Refinery;

(ii) 7.5 lakh tonnes per annum expansion (to achieve a refining capacity of 60 lakh tonnes per annum) and 6 lakh tonnes per annum fluid catalytic cracking unit in the Bharat Petroleum Refinery, Bombay;

(iii) 28 lakh tonnes per annum expansion (to achieve a refining capacity of 56 lakh tonnes per annum) and 6 lakh tonnes per annum fluid catalytic cracking unit in Madras Refinery; and

(iv) 30 lakh tonnes per annum expansion (to achieve a refining capacity of 45 lakh tonnes per annum) with 6 lakh tonnes per annum fluid catalytic cracking unit in the Hindustan Petroleum Refinery, Visakhapatnam.

The following secondary processing facilities are also under implementation :—

(i) 10 lakh tonnes per annum fluid catalytic cracking unit in the Koyali Refinery of Indian Oil Corporation;

(ii) 10 lakh tonnes per annum fluid catalytic cracking unit in the Mathura Refinery of Indian Oil Corporation; and

(iii) 5 lakh tonnes delayed coking plant in the Barauni Refinery.

In addition to the main refinery expansion projects which are under implementation, there are a number of proposals which are under consideration. These include the expansion of the Haldia Refinery, pro-

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posals to increase lube production at HPCL refinery at Bombay and Madras, and production of wax in Barauni. Expansion proposals of the refineries at Barauni, Bongaigaon and Digboi in North-East India are also under consideration. It is also proposed to set up two new refineries near Karnal in Haryana and Mangalore in Karnataka with a capacity of 60 lakh tonnes per annum.

Cochin Refineries

Cochin Refineries Ltd. (CRL), was incorporated in September 1963 with a designed capacity to process 25 lakh tonnes of crude per annum, which after the expansion of the refinery in August 1973 was raised to 33 lakh tonnes per annum. The products of the refinery—liquified petroleum gas, naphtha, motor spirit, superior kerosene, high speed diesel, light diesel oil, furnace oil and asphalt—are sold to the Indian Oil Corporation for marketing.

The Central Government holds 52.83 per cent of equity shares in the Company, Phillips Petroleum of USA 26.43 per cent and Kerala Government 7.14 per cent. The remaining 13.6 per cent is held by institutions such as Life Insurance Corporation, Unit Trust of India, General Insurance Companies, nationalised banks and the public.

Madras Refineries

The Madras Refineries Ltd. (MRL), was incorporated as a company in December 1965 with an authorised capital of Rs 13.50 crore, pursuant to the agreement between the Government of India, National Iranian Oil Company and AMCCO India, Inc. of USA. The project is implementing a programme to expand its capacity from 28 to 56 lakh tonnes together with 6 lakh tonnes FCC unit and is scheduled for completion during July 1984 to January 1985. A paraffin wax plant of 20,000 tonnes costing Rs 14.5 crore will be commissioned shortly. There is also a proposal for providing facilities to increase the production of bitumen to 4,50,000 tonnes per year.

Pipelines

Prior to 1964-65, a pipeline had been constructed to transport the crude from the Nalorkatiya oil fields to Guwahati and Barauni refineries. Since then various multiproduct pipelines have been laid. These are Guwahati-Siliguri, Koyali-Ahmadabad, Barauni-Kanpur and Haldia-Mourigram-Rajbandh pipelines. There is also a network of pipelines in Gujarat for transporting crude from the Gujarat oil fields to the Koyali Refinery.

A crude pipeline with a length of 1,075 km from Salaya to Mathura *via* Viramgam with a branch line from the latter to Koyali has been laid by the IOC. A product pipeline from Mathura to Jalandhar *via* Delhi and Ambala has been completed in three phases in December 1982.

Indian Oil Corporation

The Indian Oil Corporation Ltd. (IOC), was set up on 1 September 1964 by amalgamating the Indian Refineries Ltd. (estd. in 1958), with the Indian Oil Company Ltd. (estd. in 1959). The Corporation has three divisions, namely, (i) the Marketing Division with head office at Bombay; (ii) Refineries and Pipelines Division with headquarters at New Delhi; and (iii) the Assam Oil Division with headquarters at Digboi.

Indian Oil Corporation has a research and development centre at Faridabad in Haryana. The Centre provides technical service to customers and is engaged in the development of sophisticated lubricating oil. The Centre is actively working on the possibilities of production and utilisation of viable alternate substitute fuels.

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The market participation of the Corporation was about 60.6 per cent of the total industry sales during 1981-82. As on 1 January 1983, the Corporation had in existence a total of 677 cooking gas (LPG) distributorships, 4,501 retail outlets (petrol/diesel) dealerships and 2,307 kerosene/ light diesel dealerships in the country.

Indo-Burma Petroleum

Apart from marketing petroleum products obtained from IOC, the public sector, Indo-Burma Petroleum Co. Ltd. has two other divisions, namely, engineering division and chemicals division. The former manufactures high vacuum engineering items like cryo-containers and the latter industrial explosives.

Bharat Petroleum Corporation

On 24 January 1976, Government acquired the entire share capital of Burmah Shell Refineries Ltd., and the assets and liabilities of Burmah Shell Oil Storage and Distributing Company of India Ltd., in relation to its undertakings in India. Now named as Bharat Petroleum Corporation Ltd. (BPCL), it has a refinery at Bombay. As on 1 April 1982, it had a network of 3,209 retail outlets in the country and it handled about 53.17 lakh tonnes of petroleum products during 1981-82. With the setting up of the secondary processing facilities, the capacity of BPCL refinery at Bombay would be increased from the present 52.50 lakh tonnes to 60 lakh tonnes per annum by October 1984. BPCL has also two lube oil blending plants, one at Bombay and the other at Calcutta.

Hindustan Petroleum Corporation

The Hindustan Petroleum Corporation (HPCL) was formed when Government took over 74 per cent shares of ESSO Oil Company in India on 14 March 1974. On 1 October 1976, the remaining 26 per cent shares were also acquired. ESSO had a refinery at Bombay.

On 30 December 1976, the entire share capital of Caltex undertakings in India was taken over by Government and the company was named Caltex Oil Refining (India) Ltd. With effect from 9 May 1978, it has been merged with the Hindustan Petroleum Corporation Ltd. Caltex had a refinery at Visakhapatnam. The amalgamated HPCL with a total of 3,094 retail outlets (as on 1 April 1982) handled about 56.87 lakh tonnes of petroleum products during 1981-82, which constituted about 17.5 per cent of total sales of the industry.

HPCL has two refineries, one at Bombay with an annual capacity of 35 lakh tonnes and the other at Visakhapatnam with a capacity of 15 lakh tonnes per annum. The capacity of Visakhapatnam unit is being expanded to 45 lakh tonnes per annum. HPCL has also a lube refinery at Bombay.

ORGANISATIONS UNDERTAKINGS

Engineers India

Engineers India Ltd. (EIL), was incorporated in 1965 and became a wholly Government owned undertaking in 1967. The company renders design engineering and technical consultancy services to organisations both in public and private sectors in the fields of petroleum refining, pipelines, petrochemicals, fertilizers, chemicals, cement, paper, power, non-ferrous metallurgical plants, ocean engineering and other process related industries. In addition, it offers specialised services in process design and development, commissioning and operation services, design of heat and mass transfer equipment, environment engineering planning and scheduling, cost engineering and also specialised services for maintenance, corrosion and material selection problems of process plants as well as procurement, inspection, transportation

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and custom clearance services. The company has its own computer system and is rendering services on electronic data processing to various clients.

Lubrizol India Ltd. — Lubrizol India Ltd. was incorporated in July 1966 under the Companies Act in pursuance of an agreement entered into between the Government of India and Lubrizol Corporation, USA in December 1965. The company manufactures chemical additives for use in petroleum based fuels and lubricants needed for the core sectors of the economy like defence, transport, etc. The company manufactures some of the major intermediates locally and efforts have been on continuously to use progressively more and more indigenous raw materials, so as to reduce foreign expenditure on import of raw materials/finished products.

Balmer Lawrie & Co. — A subsidiary of IBP, Balmer Lawrie & Co. Ltd., is engaged in the manufacture of lubricating greases and lube barrels, tea export, marketing agency products, and tea and travel business. The company is exploring several projects as part of its diversification programme to ensure its continuous growth in future.

Biecco Lawrie Ltd. — Major activities of Biecco Lawrie Ltd. are manufacture and marketing of electric motors and switchgear equipments and undertakings of electrical repairs of rotating machineries.

Bridge and Roof Co. — Major activities of Bridge & Roof Co. (India) Ltd., are structural fabrication, manufacture of marine freight containers, civil construction and erection of structurals and equipment.

Indian oil Blending — The Indian Oil Blending Ltd., is a wholly owned subsidiary of IOC engaged in blending lubricants and greases.

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18 INDUSTRY

During the last three decades of planned development, industrial production has made rapid strides both in terms of variety and quality. The production increased at an average growth rate of about 5 per cent per annum during 1970–82. While almost all groups of industries contributed to this increase, the growth has been particularly marked in areas, such as, petroleum products, chemicals and chemical products, metal products, electronics and other electrical machinery, transport equipment and power generation. The share of manufacturing sector in the net domestic product at constant prices increased from 13.4 per cent in 1970-71 to 15.2 per cent in 1981-82.

The different five year plan periods saw the expansion and diversification of the industrial structure with the establishment of new units in the existing fields as well as the setting up of new enterprises. As a result, the number of industrial units has increased significantly. In 1951, there were only two major units producing iron and steel. There are now six major steel plants with a capacity of about 87 lakh tonnes. They produced about 71 lakh tonnes of saleable steel during 1982-83. The steel produced by these plants has provided the basis for achieving self-sufficiency in making a number of engineering goods, from pin to giant machinery. In the field of new industries, agricultural tractors, electronics and fertilizer industries, which practically did not exist in 1951, have progressed to such an extent that the import of these products has been brought down to the minimum. The drug and chemical industries have also made rapid progress. The textile industry is no longer confined to the cotton and jute textiles. Today, there are quite a few units producing different types of synthetic fibres. The machine building industry, too, has made rapid strides. The engineering industry can supply virtually the entire requirement of power generating equipment, equipment for railways, road transport and communications. Self-sufficiency has been reached with regard to sugar and cement machinery, power boilers, material handling equipment and a large number of consumer durables.

An important feature of industrial growth in the country after Inde-

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pendence has been the rapid expansion of the public sector. In 1951, there were only five non-departmental public undertakings, with an investment of Rs 29 crore. On 1 April 1982, they numbered 203 with an investment of Rs 24,761 crore. These enterprises produce diverse products such as steel, coal, aluminium, copper, heavy and light engineering products, fertilizers, basic chemicals, drugs, minerals, petroleum products, locomotives, aircraft and ships.

INDUSTRIAL POLICY

Independent India's industrial policy was first announced in 1948. This envisaged a mixed economy with an overall responsibility of the Government for planned development of industries and their regulation in the national interest. While it reiterated the right of the State to acquire an industrial undertaking in public interest, it reserved an appropriate sphere for private enterprise. The policy was revised in 1956 following Parliament's acceptance in 1954 of a socialistic pattern of society as the national objective. Under the revised policy, industries specified in Schedule A (enumerated below) are the exclusive responsibility of the State, while industries in Schedule B (also enumerated below) are to be progressively State-owned, but private enterprise is expected to supplement the efforts of the State in these fields. Future development of industries falling outside the two Schedules would, in general, be left to private enterprise. Notwithstanding this demarcation, it is always open to the State to undertake any type of industrial production.

Schedule A Industries : Arms and ammunition and allied items of defence equipment; atomic energy; iron and steel, heavy castings and forgings of iron and steel; heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the Central Government; heavy electrical plant including large hydraulic and steam turbines; coal and lignite; mineral oils; mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamonds; mining and processing of copper, lead, zinc, molybdenum and wolfram; minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order 1953; aircraft; air transport; railway transport; shipbuilding; telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets), generation and distribution of electricity.

Schedule B Industries : All other minerals except 'minor minerals' as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A; machine tools; ferro-alloy and tool steel; basic and intermediate products required by chemical industries, such as the manufacture of drugs, dyestuffs and plastics, antibiotics and other essential durgs, fertilizer; synthetic rubber; carbonisation of coal; chemical pulp; road transport and sea transport.

Regulation of Industry

In line with the policy first announced in 1948, the Constitution was amended and the Industries (Development and Regulation) Act, 1951, was enacted. Under this, industries listed in the first Schedule to the Act are required to be licensed by the Government. The Act also authorises the Government to examine the working of any such industrial undertaking and to issue directions which it considers necessary. If the undertaking continues to be mismanaged, the Government is empowered to take over its management or control. The Act empowers

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the Government to secure equitable distribution and fair prices of any article produced by the scheduled industries.

Industrial Licensing

An important objective of the industrial policy is to prevent the emergence of private monopolies and the concentration of economic power in the hands of a small number of individuals. The problem was studied by the Mahalanobis Committee on Distribution of Income and Levels of Living (1960), the Monopolies Enquiry Commission (1964), and the Industrial Licensing Policy Inquiry Committee (ILPIC) (1967). The Administrative Reforms Commission and the Planning Commission also made various recommendations. As a result, the Monopolies and Restrictive Trade Practices (MRTP) Act was passed in 1969 and under the Act the Monopoly and Restrictive Trade Practices Commission was appointed in 1970. The industrial licensing policy was modified in 1970 and again in 1973.

The latest modifications reaffirmed that the Industrial Policy Resolution of 1956 would continue to govern Government's policies in the industrial sphere. All industries of basic and strategic importance, or in the nature of public utility services would continue to be in the public sector. Industries which are essential and require investment on a scale, which only the State in the present circumstances could provide, would also be in the public sector.

A large industrial house for licensing purposes would mean a house having assets along with assets of inter-connected undertakings (as defined in the MRTP Act, 1969), of not less than Rs 20 crore as against assets exceeding Rs 35 crore provided by the ILPIC.

The list of industries, which are open for larger industrial houses and foreign companies and subsidiaries of foreign companies has recently been re-defined. This covers 24 groups and was announced in April 1982. They cannot, however, participate in the production of any item reserved for the public sector as mentioned in Schedule A of the small scale sector.

The larger industrial houses would ordinarily be excluded from the industries not included in the 24 groups except where production is predominantly for exports. The minimum export obligation in such cases is to be at least 60 per cent of the additional production (75 per cent in the case of industries normally reserved for small scale units). The investment of foreign concerns would continue to be subjected to the guidelines on the dilution of 'foreign equity' and would be examined with special reference to technological aspects, export possibilities and the overall effect on the balance of payments.

Competent small and medium entrepreneurs would be preferred *vis-a-vis* the larger industrial houses and foreign concerns in the setting up of new capacity. Licensing policy would seek to promote production of ancillaries in the medium or small scale sector. Cooperative and small and medium entrepreneurs are to be encouraged to participate in the production of mass consumption goods. Other investors would be allowed to participate only if there are special factors, such as, sizeable economies of scale resulting in reduced prices, technological improvements, large investment requirement, substantial export possibilities or as part of modernisation. The cooperative sector would also get preference in the licensing of industries which process agricultural raw materials, such as, sugarcane, jute, cotton or agricultural inputs like fertilizers.

The policy of reservation for the small scale sector (involving

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investment in machinery and equipment up to Rs 20 lakh) and ancillary industries (involving investment in plant and equipment up to Rs 25 lakh) has been continued. The Government has extended the area of reservation to 831 industries for this sector keeping in view its performance and potentialities.

The exemption limit for licensing purposes, has since been raised up to Rs 5 crore by way of fixed assets in land, buildings and machinery. This exemption would not apply to larger industrial houses, dominant undertakings and to foreign companies including their branches and subsidiaries.

Each proposal for establishing a joint sector project would be judged and decided on its merits in the light of Government's social and economic objectives. The undertakings covered by the MRTP Act would not be allowed to use the device of joint sector projects for entry in industries from which they are otherwise precluded. The Government would also ensure for itself an effective role in guiding policies, management and operation of joint sector companies.

Government has identified and notified certain backward districts/areas for purpose of development. Government has also decided to give special consideration to applications showing preference in establishing industrial undertakings in such backward areas. A quick analysis has been conducted to locate the districts in the country with no large or medium industry. Such districts have been identified.

Liberalisation of Licensing Policy

In pursuance of the liberalised licensing policy, the Government decided to exempt from the normal industrial licensing procedure medium entrepreneurs to enable them to set up industrial capacities based on indigenous equipment and local raw materials and also to utilise to a fuller extent the existing installed capacities. Accordingly, 24 medium industries were exempted from the licensing provisions for setting up a new undertaking, substantial expansion of the existing capacity and manufacture of new articles.

Another 29 medium sector industries were allowed fuller utilisation of the installed capacities. This was done with the twin objectives of containing inflation and increasing production in key and important industries.

To liberalise investment procedure, powers have been delegated to administrative ministries to dispose of certain types of applications including those for diversification, carry-on-business licences and extension of validity period of letter of intent or industrial licences.

Automatic growth has been allowed to 19 industries which are open for larger industrial houses and foreign concerns along with other applicants and 15 export oriented engineering industries. These are allowed to grow at the rate of 5 per cent per annum or up to a ceiling of 25 per cent in a five-year period ending 14 August 1985 in one or more steps over their licenced capacity provided the item is not reserved for small scale sector or public sector and the undertaking is not a dominant unit in the particular line of manufacture within the meaning of MRTP Act. This facility has since been extended to industries notified in April 1982.

A scheme for providing special facilities to cent per cent export oriented units has been devised. They include exemption from import duty on capital goods, raw materials and components without indigenous angle scrutiny, etc. Further, the MRTP Act has been amended

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to exclude exports for the purpose of determining the dominance of the units in terms of the MRTP Act. A Special Board to be serviced by the secretariat for industrial approvals has been set up to consider all the applications for setting up cent per cent export oriented units.

It was decided in September 1980 to recognise installed capacities which were in excess of licensed capacities in 34 selected industries of importance to national economy and those engaged in production of articles of mass consumption. Again in April 1982, in order to give a positive production orientation to the industrial economy, it was decided that the capacity on the industrial licences/registration certificates would be re-endorsed at the level of highest production achieved during any of the five years period prior to 31 March 1982 plus 1/3rd thereof, if production plus 1/3rd thereof is more than the licensed capacity plus 25 per cent thereof. The eligible units would have similar benefits of re-endorsement of highest production plus 1/3rd again in March 1983, if the capacity endorsed/re-endorsed on licences exceeds during 1982-83. This facility is, however, not available in respect of items reserved for small scale sector and 74 specified items subject to capacity constraints. The benefits of this scheme to the MRTP/FERA (Foreign Exchange Regulation Act) companies would, however, be limited to the industries included in Appendix I to press note dated 2 February 1973. It is also subject to the condition that dominance of the dominant undertaking does not further increase.

With a view to utilising full installed capacity, diversification has been allowed in industrial machinery, machine tools, electrical equipment, steel castings, steel forgings, steel pipes, passenger cars and power driven two-wheeler industry within the overall licensed capacity of a particular industrial undertaking.

A technical development cell has been set up in the Ministry of Industry to promote full utilisation of capacity to enhance export development efforts. A technical development fund has also been created to cover the foreign exchange needs for import of equipment having an impact on quality and quantity output, technical know-how, foreign consultancy services and import of drawing and designs.

To encourage commercial exploitation of technology developed by national laboratories, industrial undertakings, other than those falling within the purview of the MRTP Act and FERA, can set up capacities based on technology developed by any of the laboratories established by the CSIR and laboratories approved by the Department of Science and Technology without obtaining an industrial licence.

Non-residents of Indian origin have been allowed facilities to import plant and machinery for the establishment of industrial projects in India from their own savings in foreign exchange. These facilities have been liberalised so as to attract remittance and investment in industries in the priority and the export oriented sectors.

STANDARDISATION

National standards for commodities, materials and processes are laid down by the Indian Standards Institution (ISI) which was set up in New Delhi in 1947. It promotes standardisation and quality control in industrial technology and imparts training in standardisation techniques. The Institution operates the ISI Certification Mark scheme under which licences are issued to manufacturers for applying the certification mark on their products.

INDUSTRIAL FINANCE

Institutional finance for industries is provided by several term-ending institutions both at the all-India level and the state level. The insti-

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tutions which supply industrial finance are described below :

Industrial Development Bank of India

The Industrial Development Bank of India (IDBI) was set up in 1964 to coordinate the activities of other financial institutions (including banks) to supplement their resources to plan and promote industries of key significance to the industrial structure, and to adopt and enforce a system of priorities in promoting future industrial growth. The IDBI was delinked from the Reserve Bank of India and made an autonomous Corporation owned by the Government from 16 February 1976. Under its charter, the IDBI can finance all types of industries, irrespective of the form of organisation or size of the units. Also, there are no restrictions on the nature and type of security and quantum of assistance which it can provide.

As an apex financial institution, the IDBI has been assigned a special role for planning, promoting and developing industries to fill vital gaps in the industrial structure; providing technical and administrative assistance for promotion, management or expansion of industry; and undertaking market and investment research and surveys as also techno-economic studies in connection with development of industry. Besides its head office at Bombay, it has regional offices at Ahmedabad, Calcutta, Guwahati, Madras and New Delhi and 11 branch offices in various states.

The IDBI is operating various schemes of assistance; project finance scheme (loans, underwriting, direct subscription and guarantees) for setting up new units as well for expansion, diversification and modernisation of existing units; soft loan scheme for selected industries; technical development fund scheme; refinance of industrial loan scheme; bills rediscounting scheme and seed capital assistance scheme. Its export finance operations were taken over by the newly created Export-Import Bank with effect from 1 March 1982.

The authorised capital of IDBI is Rs 500 crore. The paid-up capital is Rs 200 crore. Aggregate financial assistance sanctioned under all the schemes (including export finance operations up to February 1982 but excluding guarantees) by IDBI during 1981-82 (July-June) at Rs 1,798 crore in respect of 66,551 applications was 4.7 per cent higher than Rs 1,718 crore sanctioned to 62,565 applicants during 1980-81. Utilisation of the assistance during 1981-82 improved considerably with total disbursements (excluding guarantees) at Rs 1,353 crore showing a rise of 21.1 per cent over Rs 1,117 crore disbursed during 1980-81. The cumulative assistance (excluding guarantees) sanctioned and disbursed since the inception of the IDBI up to end of June 1982 aggregated Rs 8.813 crore and Rs 6,062 crore, respectively. Total assistance outstanding as on 30 June 1982 was Rs 4,185 crore.

The IDBI has been actively assisting the process of accelerated industrialisation of backward areas. Since 1970-71 when the concessional schemes of assistance for units in backward areas were introduced, up to end of June 1982, aggregate assistance of Rs 3,307 crore has been sanctioned for units located in specified backward areas forming 43.4 per cent of the total assistance sanctioned to industrial units.

Industrial Finance Corporation of India

The Industrial Finance Corporation of India (IFCI) is the first development bank established in the country under an Act of Parliament

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on 1 July 1948, with the object of providing medium and long-term credits to eligible industrial concerns in India.

The IFCI provides direct financial assistance for the setting up of new industrial projects as also for the expansion, diversification, renovation or modernisation of existing ones, in the form of rupee and foreign currency loans, underwriting and/or direct subscription to shares/debentures as also guarantees for deferred payments and foreign currency loans to all eligible medium and large-sized industrial projects set up or proposed to be set up in the country in the corporate and/or cooperative sector.

In the promotional role, the thrust of IFCI's promotional activities is on the development and growth of industries in the rural, tiny, small scale and ancillary sectors. The IFCI has also been helping the development of entrepreneurship in the rural, tribal and small scale sectors through its specially devised promotional schemes and agencies like the Technical Consultancy Organisation (TCO) set up for the purpose. Special consideration under IFCI's promotional schemes is available to the scheduled caste/scheduled tribe and physically handicapped entrepreneurs as also unemployed youths. While the Risk Capital Foundation (RCF) set up by IFCI provides soft loan assistance to the new and technician entrepreneurs enabling them to meet the promotors' equity for medium-sized projects, the Management Development Institute (MDI) and the Development Banking Centre (DBC) are also sponsored by IFCI, providing much needed training in modern management techniques and development of managerial skills in the different sectors of industry.

Industrial Credit and Investment Corporation

The Industrial Credit and Investment Corporation of India Ltd. (ICICI), was set up in 1955. Since its inception and up to 31 March 1982, an amount of Rs 1,383 crore was disbursed by the Corporation. Cumulative assistance sanctioned was Rs 1,910 crore.

State Financial Corporations

Eighteen state financial corporations provide industrial finance to medium and small scale sectors. The total loans sanctioned by the Corporations since inception and up to 31 March 1982 aggregated Rs 2,376 crore and disbursements Rs 1,619 crore.

Industrial Re-construction Corporation

The Industrial Reconstruction Corporation of India (IRCI), which was set up in 1971, is concerned with the revival and rehabilitation of industrial units which have closed down or are facing closure but show promise of viability by reconstruction of share capital, strengthening of management, provision of finance on soft terms, improvement in technology and labour relations. Up to 31 March 1982, the IRCI had sanctioned financial assistance aggregating Rs 143 crore to 137 units, actual disbursements being Rs 111 crore.

National Industiral Development Corporation

The National Industrial Development Corporation Ltd. (NIDC), was set up in 1954 for promotion and development of industries in the country. It had then two functions, *viz.*, to associate with and appraise the projects being set up with foreign collaboration and to advance loans to textile, machine tool and jute industries. The latter activity, *viz.*, giving loans to industries, was discontinued in 1963. The experience gained in the scrutiny and appraisal of project reports led to formation of a consultancy wing under the NIDC. In the following years, this became the prime activity of NIDC as the consultancy services in the country were then in the formative stage only. Since then, NIDC has

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rendered consultancy services in a variety of fields to a number of industrial projects in India as well as over 30 countries abroad.

Unit Trust of India

The Unit Trust of India (UTI) was established in 1964 as a public sector investment institution for mobilising the savings of the community and channelling them into productive corporate investments so as to provide for the growth and diversification of the economy.

To achieve this, UTI sells units of the denomination of Rs 10 or Rs 100 to the investing public to provide an opportunity to particularly those belonging to small and medium income groups indirectly to participate in the ownership of shares and debentures of joint stock companies.

For this purpose, UTI has been formulating various schemes from time to time to cater to the specific investment needs of different types of investors. The eight schemes which are currently in operation are : (i) Unit Scheme 1964; (ii) Reinvestment Plan 1966; (iii) Children's Gift Plan 1970; (iv) Unit Linked Insurance Plan 1971; (v) Unit Scheme for Charitable and Religious Trusts and Registered Societies (CRTS) 1981; (vi) Income Unit Scheme 1982; (vii) Monthly Income Unit Scheme 1983; and (viii) Growth and Income Unit Scheme 1983.

UTI has been stepping up the rate of dividend progressively ever since its inception. For the Unit Scheme 1964, which is the principal scheme of the Trust, the rate of dividend has been increased continuously from 6.1 per cent for 1964-65 to 12.5 per cent for 1981-82.

FOREIGN CAPITAL

To supplement the capital resources and know-how for rapid industrial development, the Government of India allows foreign assistance in desirable cases. The policy in regard to foreign capital is governed by the Industrial Policy Resolution of 1948 and the Prime Minister's statement in the Constituent Assembly in 1949. Under this, the Government's policy towards foreign investment is highly selective and aims at filling technological gaps and expanding exports. Foreign capital is not permitted in the fields of banking, commerce, finance, plantation, trading, consumer and high profit-yielding industries. Certain liberalised facilities for investment in India have, however, been now made available to investors from oil-exporting developing countries and non-resident Indians.

Under Section 29 of the Foreign Exchange Regulation Act, 1973, companies incorporated abroad and Indian companies having more than 40 per cent non-resident interest are required to obtain fresh permission of the Reserve Bank of India to carry on their existing business activities in India.

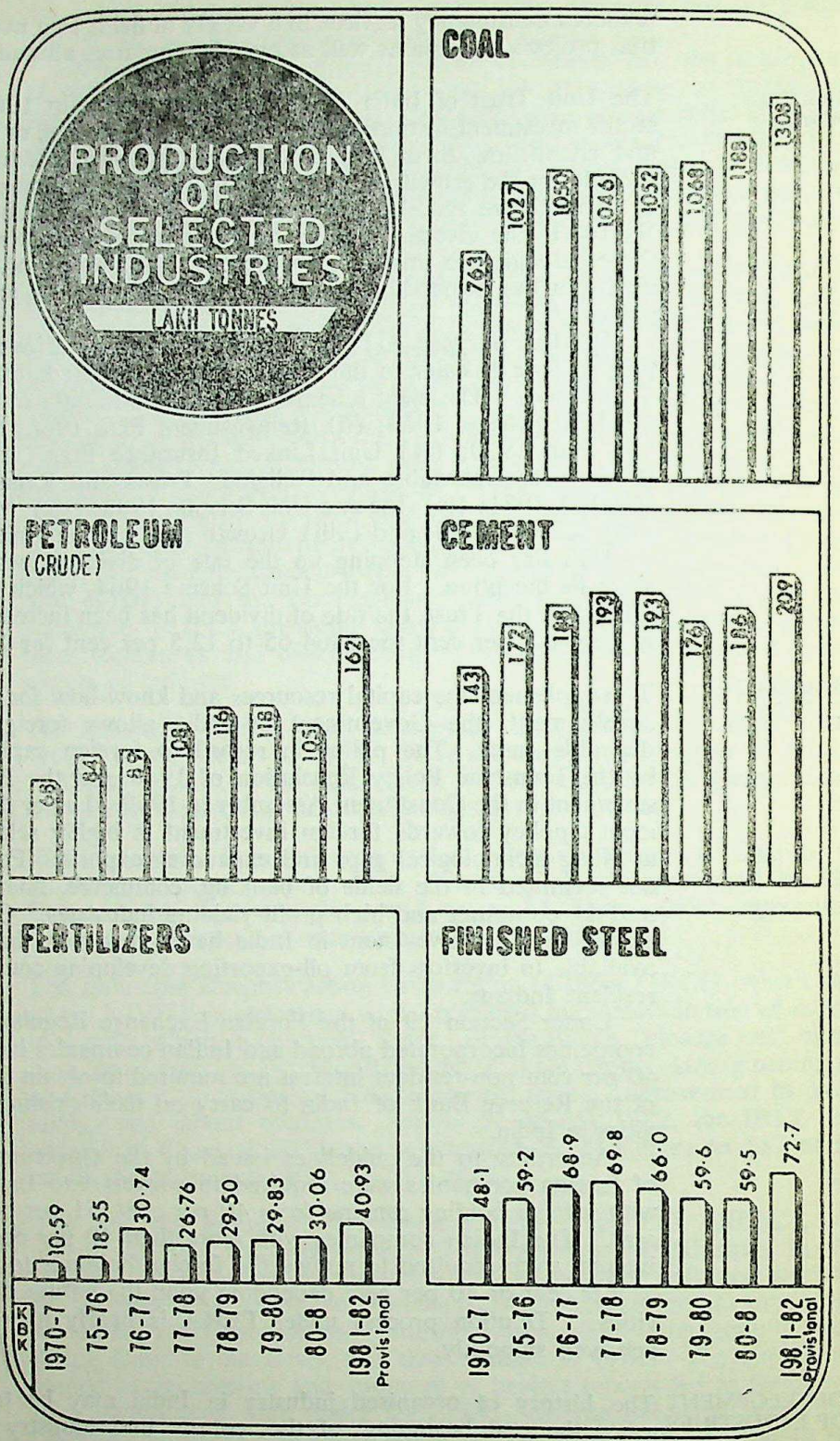
According to the guidelines issued by the Government, branches of foreign companies were required to convert into Indian companies with foreign holding ranging from 40 per cent, 51 per cent and 74 per cent. The Indian companies with more than 40 per cent non-resident interest were required to reduce the foreign holdings to 74 per cent or 51 per cent or 40 per cent depending upon the nature of business activities. Dilution process under FERA is nearly over and this was achieved smoothly.

DEVELOPMENT OF INDUSTRIES

The history of organised industry in India may be traced to 1854 when the real beginning of the cotton mill industry was made in Bombay with predominantly Indian capital and enterprise. The foun-

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dations of jute industry were laid near Calcutta in 1855, mostly with foreign capital and enterprise. Coal-mining also progressed about this time. These were the only major industries which had developed substantially before the First World War. During and after the First and Second World Wars a somewhat more liberal policy was adopted by the authorities, such as, a discriminating protection policy, which gave impetus to industrial development. Several industries rapidly expanded and a number of new industries came up, such as, steel, sugar, cement, glass, industrial chemicals, soap, vanaspati and some branches of engineering. But their production was neither adequate in quantity for meeting even the low level of internal demand nor diversified in character.

Progress during First and Second Plans

During the First and Second Plans the growth and diversification of industry were remarkable particularly in the Second Plan. Three new steel plants, each of 10 lakh ingot tonnes capacity, were set up in the public sector and the capacity of the two existing steel works in the private sector was doubled. Foundations were laid on heavy electrical and heavy machine tools industries and heavy machine building and other branches of heavy engineering industries. The production of machinery for cement and paper industries was started for the first time. In chemical industries, the advance was on a wide front, leading not only to large units and greatly increased output of basic chemicals, such as, nitrogenous fertilizers, caustic soda, soda ash and sulphuric acid, but also in the manufacture of a number of new products like urea, ammonium phosphate, penicillin, synthetic fibres, industrial explosives, polythylene and dye stuffs. The output of many other industries, like bicycles, sewing machines, telephone and electrical goods, increased substantially. New skills were learnt by the workers and a large and growing class of industrial managers came into being. Organised industrial production practically doubled in these ten years; the index of industrial production rose from 100 in 1950-51 to 194 in 1960-61. New industrial townships and factories sprang up in the environs of the main cities of the country.

Progress during Third Plan and Annual Plans

Industrial progress was markedly uneven during the eight years which comprised the Third Plan, and the subsequent Annual Plans. In the first four years, conditions were relatively favourable for industrial investment and growth and the progress achieved was significant. Thereafter, for nearly three years the economy was subjected to considerable stress and strain and the growth rate in industrial production declined, first slowly and then steeply, till it reached virtual stagnation. But in the last year of this period, 1968-69, there were distinct signs of recovery.

The decline after 1964-65 was attributable to several factors, of which the most important were the series of dislocations caused by the hostilities in 1965 and two successive droughts in 1965-66 and 1966-67. Many industries were severely affected by the shortage of raw materials and components arising from the pause in external aid in 1965.

Among industries in which Third Plan production targets were fully or nearly realised by 1965-66 were aluminium, automobiles, electric transformers, cotton textile machinery, machine tools, sugar, jute, textiles, power-driven pumps, diesel engines and petroleum products. On the other hand, in some of the important industries like

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steel and fertilizers, there was a considerable shortfall in production. In subsequent years, there was a step-up in production in certain industries, such as, fertilizers, heavy chemicals, cement and petroleum products. In spite of this uneven performance, significant achievements contributing towards the realisation of diversified industrial structure were made during this period. Substantial capacity was created in many new lines. Several of the large projects launched at the commencement of the Third Plan were completed and brought into production. In particular, in the field of heavy engineering and different units in the Heavy Engineering Corporation, Mining and Allied Machinery Corporation and of heavy electrical projects made it possible, largely through indigenous efforts, the expansion of further capacity in vital sectors like iron and steel, mining and power generation. In the field of rail and road transport and communications, virtual self-sufficiency for the supply of equipment and rolling stock was achieved. Machinery manufacturing capacity for a variety of traditional industries like textiles, sugar and cement was developed and design and engineering capabilities were expanded. Process technology was either acquired or developed to enable the planning, designing and construction of industrial projects with maximum indigenous efforts in fields like fertilizers, rayon and dissolving pulp. There was an appreciable increase in the production capacity of steel and non-ferrous metals. Progress was made in the expansion of capacity in petroleum, fertilizer and petro-chemical industries.

Progress during Fourth Plan

In the Fourth Plan, the performance of the industrial sector fell short of expectations both in terms of production and investment. The investment of industrial development in the public sector was estimated to be about Rs 2,700 crore as against the provision of Rs 3,050 crore. While the pace of investment in some of the sectors like iron ore, petroleum and petro-chemicals was generally satisfactory, this was not so in respect of other sectors like iron and steel, non-ferrous metals, fertilizers and coal. In fact, the shortfall in overall investment was much larger, if account was taken of the escalation in project costs.

A number of factors were responsible for the unsatisfactory growth in industrial production. While in some of the critical industries like steel and fertilizers, production remained substantially below the installed capacity on account of operational problems in different units, other agro-based industries like sugar and textiles showed an erratic trend. The inadequate pace of investment resulted in a reduced demand for industrial machinery, adversely affecting the level of output of the capital goods industries. Production in other engineering industries was also hit by the shortage of steel and non-ferrous metals.

On the positive side, there was a substantial production increase in several industries like alloys and special steels, aluminium, automobile tyres, petroleum refinery products, electronics, machine tools, tractors and heavy electrical equipment. The production in the public sector undertakings also showed an encouraging rise towards the closing years of the Plan. Apart from this, the industrial base was further expanded and a greater degre of sophistication and self-reliance achieved.

Progress during Fifth Plan

The Fifth Plan laid emphasis on rapid growth of core sector industries and increase in the production of export-oriented goods and articles of

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mass consumption. The average rate of growth of industrial sector was estimated at 7 per cent per annum in the revised plan. The sharp increase in the prices of foodgrains, fertilizers and oil seriously upset the assumptions on which the Fifth Plan had been framed. These new developments also lent urgency to a time-bound programme of action in order to achieve a measure of self-reliance in food and energy. The successive Annual Plans had to be formulated on the basis of these considerations.

The Fifth Plan envisaged a total outlay of Rs 53,411 crore, comprising Rs 37,250 crore for public sector and Rs 16,161 crore for private sector, respectively. However, due to the emergence of an unprecedented inflationary situation as a result of a steep increase in oil prices in November 1973, the Plan had to be drastically modified in 1976. The revised plan envisaged a total outlay of Rs 69,351 crore comprising Rs 42,303 crore for public sector and Rs 27,408 crore for the private sector, respectively. The public sector outlay included Rs 3,000 crore as investment on inventories; the remaining public sector outlay of Rs 39,303 crore as current outlay.

Of the revised public sector outlay of Rs 39,322 crore during the Fifth Plan, the share of industries and minerals sector amounted to Rs 10,201 crore or 25.9 per cent of the total outlay. The outlay for large and medium industries was Rs 9,691 crore and that of village and small industries Rs 510 crore.

As against an average rate of growth of industrial production of 7 per cent envisaged during the Fifth Plan, the actual rate of growth of industrial production was 5.9 per cent.

Progress during Sixth Plan

The Sixth Plan envisaged a total public sector plan outlay of Rs 97,500 crore. The overall outlay earmarked for large industries and minerals sector is Rs 20,407 crore including coal and petroleum. A major part of the outlay amounting to Rs 19,018 crore is in the Central sector and the balance of Rs 1,389 crore is in the State sector. Besides this, private sector investment during 1980-85 is estimated at Rs 30,323 crore. The outlay for village and small industries is Rs 1,780 crore.

Industrial policy during the Sixth Plan aims at optimum utilisation of existing capacities, quantitative increase in output of consumer, intermediate, capital goods and improvement of productivity. It aims at an annual growth rate of 8 per cent of industrial production during the five-year period. The average annual growth rate achieved during the first three years of Sixth Plan is 4 per cent in 1980-81, 8.6 per cent for 1981-82 and 3.7 per cent (provisional) in 1982-83. The growth rate during the first three years of the Plan is thus 4.9 per cent per annum.

A review of performance for the first three years of the Sixth Plan reveals that while targets are likely to be achieved in some important industries, *e.g.,* petroleum, paper and paper board, commercial vehicles, scooters, motor-cycles and mopeds, machine tools, etc., shortfalls are likely in a number of other important industries such as steel, non-ferrous metals, textiles, fertilizers, locomotives, railway coachings, electric cables and transformers. The expected shortfalls in physical production of a number of industries in 1984-85 are primarily due to delays in the execution of projects, shortages of power in a number of states and demand constraints. The number of on-

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going schemes in this sector is large, and many of these will spillover to the Seventh Plan.

PUBLIC SECTOR

Over the last three decades, the public sector has emerged as a major factor in the country's economic growth. The public sector in industry comprises : (i) public utilities like the railways, road transport services, ports, posts and telegraphs, power and irrigation projects; (ii) departmental undertakings of the Central and state governments; such as, the Chittaranjan Locomotive Works, the Integral Coach Factory, Perambur and various defence production establishments; and (iii) industrial and commercial enterprises which derive their finances almost wholly either from the Central Government or the state governments in the form of equity capital and loans.

Some salient features of the working of the Central Government industrial enterprises in the last category are as : On 31 March 1982, there were 203 Central Government public enterprises. Of these, 135 were enterprises producing and selling goods, 52 were rendering services, nine enterprises were under construction and seven were insurance companies. However, there were only 187 enterprises under operation. The number of enterprises and the expansion of investment in them since the commencement of the First Plan is shown in table 18.1.

TABLE 18·1 EXPANSION OF INVESTMENT IN PUBLIC SECTOR

	Total Investment (Rs crore)	No. of Enterprises
At the commencement of First Plan	29	5
Second Plan	81	21
Third Plan	953	48
At the end of the Third Plan (as on 31 March 1966)	2,415	74
At the commencement of the Fourth Plan	3,902	85
Fifth Plan	6,237	122
At the end of the Fifth Plan (as on 31 March 1979)	15,602	176
At the commencement of the Sixth Plan	18,225	186
As on 31 March 1981	21,102	185
As on 31 March 1982	24,761	203

Investment

Investment (equity and loan) grew from Rs 4,301 crore in 1969-70 to Rs 24,761 crore in 1981-82. Sector-wise distribution of investment is shown in table 18.2.

TABLE 18·2 SECTOR-WISE DISTRIBUTION OF INVESTMENT IN PUBLIC SECTOR UNDERTAKINGS

(Rs in crore)

Category	Investment at the end of 1980-81	Percentage of total investment	At the end of 1981-82	
			Investment	Percentage of total investment
1	2	3	4	5
1. Enterprises under construction	1,876·71	8·89	1,409·87	5·69
2. Enterprises producing and selling goods				
(i) Steel	4,113·76	19·49	4,907·84	19·82
(ii) Minerals and Metals	1,414·97	6·71	2,342·66	9·46
(iii) Coal	2,219·09	10·51	2,724·54	11·00
(iv) Petroleum	1,506·22	7·14	2,070·49	8·36
(v) Chemicals, Fertilizers and Pharmaceuticals	3,337·68	15·82	3,573·32	14·43
(vi) Heavy Engineering	1,096·69	5·20	1,226·70	4·95

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1	2	3	4	5
(vii) Medium and Light Engineering .	354·05	1·68	410·72	1·66
(viii) Transportation Equipment . . .	700·12	3·32	748·01	3·02
(ix) Consumer goods .	123·98	0·59	505·72	2·04
(x) Agro-based . .	21·48	0·10	23·54	0·10
(xi) Textiles . .	516·03	2·45	549·73	2·23
3. Enterprises rendering services				
(i) Trading and Marketing Services . .	686·42	3·25	757·98	3·07
(ii) Transportation Services	1,645·36	7·83	1,705·58	6·89
(iii) Contracts and Construction Services .	124·38	0·59	188·17	0·76
(iv) Industrial Development and Technical Consultancy Services	63·26	0·30	100·71	0·41
(v) Development of Small Industries . .	30·89	0·15	37·70	0·15
(vi) Tourist Services .	36·92	0·17	48·76	0·19
(vii) Financial Services .	1,097·61	5·20	1,300·69	5·25
(viii) Companies registered under Section 25 .	56·91	0·27	61·45	0·25
4. Insurance Companies .	70·94	0·34	67·19	0·27
	21,102·47	100·00	24,761·37	100·00

Turnover

Total turnover of the undertakings amounted to Rs 36,443 crore during 1981-82 as against Rs 28,635 crore in the previous year, registering an increase of 27 per cent. The pattern of turnover in the enterprises during 1980-81 and 1981-82 is given in table 18.3.

TABLE 18·3
TURNOVER OF THE ENTERPRISES

(Rs in crores)

Sl. No.	Cognate Group	TURNOVER 1981-82	TURNOVER 1980-81
	Enterprises Producing Goods		
1.	Steel	2,981·63	2,408·20
2.	Minerals and Metals	607·13	506·77
3.	Coal	1,549·09	1,100·37
4.	Petroleum	15,000·95	10,438·33
5.	Chemicals, Fertilizers and Pharmaceuticals . .	1,894·29	1,340·54
6.	Heavy Engineering	1,294·66	1,063·65
7.	Medium and Light Engineering	892·05	618·57
8.	Transportation Equipment	704·09	463·97
9.	Consumer Goods	156·51	114·78
10.	Agro-based Products	46·90	33·51
11.	Textiles	588·58	529·29
	Total	25,715·88	18,617·98

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Sl. No.	Cognate Group	TURNOVER 1981-82	TURNOVER 1980-81
	Enterprises Rendering Services		
1.	Trading and Marketing	8,096·69	7,817·22
2.	Transportation Services	1,709·60	1,435·41
3.	Contracts and Construction	346·39	286·12
4.	Industrial Development and Technical Consultancy	302·22	269·63
5.	Development of Small Industries	15·24	10·84
6.	Tourist Services	49·09	42·78
7.	Financial Services	102·96	84·66
8.	Section 25 Companies	105·07	70·24
	Total	10,727·26	10,016·90
	Grand Total	36,443·14	28,634·88

TABLE 18·4

Exports

The value of exports by public sector undertakings during 1981-82 was Rs 2,746 crore as against Rs 2,217 crore in the preceding year. Out of these, foreign exchange covered by public enterprises rendering services like ship repairs, freight earnings, etc., amounted to Rs 1,032 crore in 1981-82 as against Rs 829 crore in 1980-81. Some of the products exported were industrial boilers, electronic instruments, machine tools, pig iron, rail coaches, steel and equipment for power stations.

Profit

The gross profit earned by the enterprises after providing for depreciation, but before interest and tax during 1981-82 worked out to Rs 2,675 crore. The profit after payment of interest but before tax was Rs 1,074 crore. One hundred and seven enterprises contributed profits totalling Rs 1,886 crore, whereas 78 enterprises showed a loss of Rs 812 crore.

Generation of Resources

The total resources generated by the public enterprises including the contribution to the public exchequer in the form of dividends, corporate tax, excise duty, etc., between 1980-81 and 1981-82 amounted to Rs 11,342 crore.

Employment

The number of persons in the employment of these enterprises was 19.02 lakh in 1981-82 as against 18.39 lakh in 1980-81. Salaries and wages paid to the employees totalled Rs 3,088 crore during 1981-82 as against Rs 2,619 crore in 1980-81.

INDUSTRIAL PRODUCTION

Production of selected industries in different years since 1950-51 is given in table 18.4.

The provisional index of industrial production (base : 1970=100) during 1981-82 increased by 13.3 points. The mining and quarrying sector showed an increase of 15.8 per cent, the manufacturing sector by 7.5 per cent and the generation of electricity by 10.2 per cent during this period. However, there has been a decline in the output of textile industries, wood and cork industries, leather and fur products and miscellaneous manufacturing industries.

The groupwise index numbers (1960=100) for 1951, 1961, 1971, and for 1979-80, 1980-81 and 1981-82 (1970=100) are given in table 18.5.

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TABLE 18·4

PROGRESS OF INDUSTRIAL PRODCTION (SELECTED INDUSTRIES)

Industry (Unit)	1950-51	1960-61	1970-71	1978-79	1979-80	1980-81	1981-82
1	2	3	4	5	6	7	8
I. *Mining*							
1. Coal (including lignite) (lakh tonnes)	328	557	743	1,054	1,068	1,188	1,308
2. Iron Ore (lakh tonnes)[1]	30	110	225	386	390	358	406
II. *Metallurgical Industries*							
3. Pig iron (lakh tonnes)	16·9	43·1	69·9	94·9	86·2	95·8	97·0
4. Steel ingots (lakh tonnes)[2]	14·7	34·2	61·4	81·5	80·3	73·5	80·3
5. Saleable steel (lakh tonnes)[3]	10·4	23·9	44·8	65·9	60·4	62·8	71·6
6. Steel castings ('000 tonnes)	—	34	62	75·4	73·1	71·3	75·0
7. Aluminium (virgin metal) ('000 tonnes)	4	18·3	166·8	213·7	191·9	199·1	206·8
8. Copper (virgin metal) ('000 tonnes)	7·1	8·5	9·3	18·5	18·8	21·8	24·7
III. *Mechanical Engineering Industries*							
9. Machine tools (Rs crore)	0·3	7	43·0	132·8	165·2	196·2	249·9
10. Railways wagons ('000 no.)[4]	2·9	11·9	11·1	11·6	12·1	13·6	17·9
11. Automobiles ('000 no.)[5]	16·5	55	87·9	103·4	104·6	121·1	154·4
(i) Commercial vehicles ('000 no.)[6]	8·6	28·4	41·2	57·6	57·4	71·7	91·1
(ii) Passenger cars, jeeps and land rovers ('000 no.)	7·9	26·6	46·7	45·8	47·2	49·4	63·3
12. Power-driven pumps ('000 no.)	35	109	259	378·0	346·8	430·6	340
13. Motor cycles and scooters ('000 no.)	—	19·4	97·0	254·9	246·6	317·1	315·9
14. Diesel engines (stationary) ('000 no.)	5·5	44·7	65·0	143·5	144·6	173·9	172·2
15. Bicycles ('000 no.)	99	1,071	2,042	3,743	3,736	4,189	5,051
16. Sewing machines ('000 no.)	33	303	235	206	385	335	343
IV. *Electrical Engineering Industries*							
17. Power transformers (lakh kva)	1·8	41·1	80·9	204·8	186·3	194·6	214·4
18. Electric motors ('000 hp)	99	728	2,721	3,940	3,940	4,060	4,400
19. Electric fans (lakh no.)	2	10·6	17·2	31·0	39·0	41·8	38·4
20. Electric lamps (lakh no.)	140	435	1,193	1,804	2,035	1,981	2,663
21. Radio receivers ('000 no.)	54	282	1,794	2,001	2,059	1,734	1,739
22. Electric cables and wires	1·7	23·6	64·2	67·5	69·1	86·0	70·3
(i) Aluminium conductors ('000 tonnes)	5	10·1	0·7	3·1	1·9	0·7	0·8
(ii) Bare copper conductors ('000 tonnes)							
V. *Chemicals and Allied Industries*							
23. Nitrogenous fertilizers ('000 tonnes of N)	9	98	830	2,180	2,226	2,164	3,144

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Industry (Unit)	1950-51	1960-61	1970-71	1978-79	1979-80	1980-81	1981-82
24. Phosphatic fertilizers ('000 tonnes of P_2O_5)	9	52	229	710	757	842	949
25. Sulphuric acid ('000 tonnes)	101	368	1,053	—	—	—	—
26. Soda ash ('000 tonnes)	45	152	449	581	542	559	632
27 Caustic soda ('000 tonnes)	12	101	371	562	545	571	614
28 Paper and paperboard ('000 tonnes)	116	350	755	1,011	1,058	1,149	1,237
29. Rubber tyres							
(i) Auto tyres (lakh no.)	8·7	14·4	37·9	71·4	70·6	79·7	87·1
(ii) Bicycle tyres (lakh no.)	33	111·5	192·0	321·8	276·1	270·0	260·0
30. Cement (lakh tonnes)	27·3	79·7	143·0	193	176	186	209
31. Refractories ('000 tonnes)	237	567	683	812	—	—	—
32. Petroleum products refined (lakh tonnes)	2	58	171	242	258	241	282
VI. *Textile Industries*							
33. Jute textiles ('000 tonnes)	837	1,097	1,060	1,047	1,337	1,392	1,334
34. Cotton yarn (crore kg)[7]	53·4	80·1	101·6	127·1	121·7	129·8	125·0
35. Cotton cloth (crore metres)[8]	421·5	637·8	777·2	939·9	906·2	963·7	951·8
(i) Mill sector (crore metres)	340·1	463·9	416·2	431.5	408·2	416·3	380·0
(ii) Decentralised sector (crore metres)	81·4	208·9	361·0	508·4	498·0	547·4	571·8
36. Rayon yarn ('000 tonnes)	2·1	43·8	100	141	128	126	127
37. Art silk fabrics(crore metres)	28·7	54·4	94·7	—	—	—	—
38. Woollen manufactures :—							
(i) Woollen and worsted yarn (lakh kg)[9]	87	130	197	434	417	—	—
(ii) Woollen and worsted fabrics (lakh metres)[10]	61	133	143	191	167	—	—
VII. *Food Industries*							
39. Sugar (Oct.—Sept.) (lakh tonnes)	11·3	30·3	37·4	58·44	38·59	51·48	84·34
40. Tea (crore kg)	27·7	32·2	42·3	57·6	53·7	58·1	55·6
41. Coffee ('000 tonnes)	21	54·1	72·7	114·9	120·2	139·5	136·4
42. Vanaspati ('000 tonnes)	170	340	558	678	618	748	—
VIII. Electricity generated crore (Kwh)[11]	530	1,690	5,580	10,250	10,460	11,080	12,200

1. Excludes output in Goa up to 1969-70.
2. In terms of steel up to 1970-71.
3. In terms of finished steel up to 1970-71.
4. Excludes output in railway workshops.
5. Includes landrovers, jeeps, utilities, station wagons and vans.
6. Includes buses, trucks, tempos and three and four wheelers.
7. Includes mixed/blended and cent per cent non-cotton yarn from 1970-71.
8. Including blended/mixed from 1970-71 onwards.
9. Includes viscose yarn, staple fibre and acetate yarn.
10. Figures are for calendar year from 1977.
11. Relates to public utilities only.

TABLE 18·5

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TABLE 18·5

INDEX OF INDUSTRIAL PRODUCTION

(Base : 1960=100)

(Base : 1970=100)[1]

1951	1961	1971	Industry Group	1979-80	1980-81	1981-82[2]	Percentage rise in 1981-82 over 1980-81
54·8	109·2	186·1	General Index	148·1	154·0	167·3	+8·6
66·6	105·4	153·4	Mining and quarrying	145·0	151·3	175·2	+15·8
37·7	116·3	358·5	Electricity generated	191·8	202·9	223·6	+10.2
—	—	—	Manufacturing	143·5	148·8	159·9	+7·5
66·9	108·6	157·6	Food manufacturing	123·5	134·1	150·5	+12·2
58·0	107·0	182·5	Beverage industries	266·1	329·2	482·0	+46·4
—	—	—	Tobacco industries	122·1	127·2	144·2	+13·4
79·7	102·8	106·0	Textiles	112·2	115·7	113·0	—2·3
N.A.	104·8	105·2	Cotton textiles	—	—	—	—
N.A.	89·1	94·7	Jute Textiles	—	—	—	—
63·5	115·4	168·1	Footwear (leather)	74·1	72·4	84·9	+17·3
43·5	95·5	224·1	Wood and cork	142·7	100·2	87·3	—12·9
38·5	105·8	225·7	Paper products	124·9	135·8	149·6	+10·2
72·4	100·9	55·3	Leather and fur products	82·8	97·9	93·7	—4·3
56·1	112·9	241·8	Rubber products	141·0	152·0	157·5	+3·6
42·4	113·4	252·7	Chemicals and Chemical products	184·2	188·2	212·8	+13·1
11·0	106·0	316·0	Petroleum refinery products	150·4	140·5	164·2	+16·9
39·0	106·9	207·6	Non-metallic mineral products	156·4	161·4	169·9	+5·3
46·5	118·7	208·6	Basic metal industries	137·6	137·5	148·1	+7·7
30·7	112·4	234·4	Metal products	161·3	147·7	149·6	+1·3
22·2	121·2	373·2	Machinery except electrical machinery	206·0	221·8	239·0	+7·8
26·3	110·0	404·8	Electrical machinery	160·0	176·0	182·1	+3·5
19·6	116·7	122·1	Transport equipment	126·6	130·7	145·2	+11·1
N.A.	102·7	114·0	Miscellaneous manufacturing industries	121·4	109·0	92·3	—15·3

1. Figures for recent years in the table have been computed on new base : 1970=100. The general index of industrial production in 1970 as base 1960=100 stood at 184·3.
2. Provisional.

N.A.—Not available.

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PRINCIPAL INDUSTRIES

COTTON TEXTILES

The origin of the cotton textile industry, the largest single industry in the country, dates back to 1818 when the first cotton mill was established at Fort Gloster near Calcutta. The grant of protection and the Swadeshi movement enabled the industry to make rapid strides. The number of mills increased to 389 in 1937 with 2,02,464 looms. At the end of September 1982, there were 803 mills (522 spinning and 281 composite) with an installed capacity of 224.8 lakh spindles, the highest in the world and 2.09 lakh looms. In 1947, cotton yarn production was 59.7 crore kg and piecegoods production 350.9 crore metres. The production of cotton yarn in 1981-82 was 126 crore kg and that of cotton cloth 414.2 crore metres.

JUTE

The jute industry is one of the oldest in the country. As a major foreign exchange earner, it occupies an important place in the country's economy. The first power-driven jute mill was established at Rishra near Calcutta in 1859 and thereafter the industry made rapid progress. The partition of the country in 1947 deprived the industry of its vital raw material. Production of raw jute in 1947-48 was only 16.5 lakh bales as against the pre-partition output of 65.70 lakh bales. In 1961-62, production of raw jute reached a record level of 80 lakh bales. Production of jute goods during 1981-82 stood at 13.34 lakh tonnes. The value of exports of jute goods during 1981-82 was Rs 239.32 crore. Of late, its share in the country's export trade has declined for various reasons. With about 44,900 looms installed in 69 jute mills (out of 72 jute mills 3 jute mills have since been closed down permanently) of which 6 are nationalised since 1980, the industry accounts for about 30 per cent of world's export of jute goods.

SUGAR

The sugar industry ranks second amongst the major agro-industries. The number of factories went up from 138 in 1950-51 to 320 in 1981-82. Production increased from 11.34 lakh tonnes in 1950-51 to 64.62 lakh tonnes in 1977-78 but, thereafter, there was a decline in production mainly due to shrinkage in cane area. It came down to 58.44 lakh tonnes in 1978-79 and further declined to 38.59 lakh tonnes in 1979-80. Thereafter, the production again picked up as a result of various developmental measures taken to augment sugarcane output. Production of sugar consequently increased to 51.48 lakh tonnes in 1980-81 and reached a record level of 84.38 lakh tonnes in 1981-82. Sugar exports during 1981-82 were 3.83 lakh tonnes as against 61,000 tonnes in 1980-81. A notable feature of the development of the sugar industry after Independence was its remarkable expansion in the cooperative sector. Out of 320 factories that worked in 1981-82, 154 were in the cooperative sector which accounted for about 56 per cent of the total sugar production in the country.

After a brief period of complete decontrol of sugar from 16 August 1978 to 16 December 1979, Government re-introduced the policy of partial control on sugar with a dual pricing system from 17 December 1979. Under this policy, 65 per cent of the total production of the factories is procured by Government as levy at controlled price and the balance 35 per cent is being allowed to be sold in the open market without any price control. This policy was continued in 1981-82.

The progress of the sugar industry since 1950-51 is shown in table 18.6.

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TABLE 18·6
GROWTH OF SUGAR INDUSTRY

	1950-51	1960-61	1970-71	1980-81	1981-82
Number of Mills . .	138	174	215	315	320
Producttion ('000 tonnes)[1]	1,134	3,021	3,740	5,148	8,438

1. Up to 1966-67, the sugar year was November-October, but later it was changed to October-September.

VANASPATI

The vanaspati industry which made a small beginning in 1930 with a limited production, has made rapid strides touching a peak production of about 8.8 lakh tonnes in 1982. There are at present 93 units having a licenced capacity of 14.2 lakh tonnes a year.

CEMENT

Manufacture of cement was first started in Madras in 1904. A real beginning on a large scale, however, was made in 1912-13 when three companies were formed. At present, there are 80 cement factories, (19 in the public sector) with a total installed capacity of about 3.6 crore tonnes per annum. Total production of cement (all varieties) in 1982-83 is expected to be 2.35 crore tonnes. It was a mere 29 lakh tonnes in 1950-51.

In pursuance of the policy of the Government to rationalise the price and distribution of cement, Government have decided in favour of partial de-control of cement with effect from 28 February 1982. Under the scheme of partial de-control, all existing cement units are required to give up to 66.6 per cent of their installed capacity as levy cement at controlled price. The new units which start commercial production after January 1982 and units which are designated as sick units for the purposes will be required to give 50 per cent of their installed capacity as levy cement. The levy cement which is expected to be of the order of 170 lakh tonnes would meet the requirement of the state and Central Government departments, state and Central Government corporations, large, medium and small scale industries for construction of factories and to small consumers constructing dwelling units having plinth area up to 100 sq mts and houses which require small quantities for repairs of residential houses. Pre-reservation of cement for the priority sector of irrigation and power will continue. State governments are being advised to provide adequate quantity of cement for meeting the requirements of socially-oriented scheme like rural housing for slum dwellers, harijans, *adivasis* and other poorer sections of society, rural water supply scheme and other items included in the Revised 20-Point Programme. No levy cement will be made available for industrial units using cement as raw material. Similarly, no levy cement will be released for construction of buildings other than factories, construction of restaurants, hotels, cinema houses, multi-storeyed or commercial buildings and residential houses having plinth area of more than 100 sq mts. Government had decided that henceforth there shall be only one single ex-factory retention price for all cement factories in the country except to the extent that there would be separate retention price for Ordinary Portland Cement (OPC), Portland Slag Cement (PSC) and Portland Pozzolana Cement (PPC). In respect of OPC/PSC the retention price would be Rs 335 per tonne and of PPC Rs 320 per tonne.

With the announcement of the policy all existing subsidies except those relating to clinker movement and units located in remote areas are discontinued. All mini cement plants except those set up by MRTP Houses, (composite plant including clinkering and grinding operations up to a capacity of 66,000 tonnes per annum) shall be free

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from price and distribution control. The mini cement plants will be eligible for such excise rebate as Government may decide from time to time. With effect from 1 October 1982 the use of cent per cent new gunny bags of improved weaving pattern will be made compulsory for packing cement by all the cement units.

The Cement Corporation of India Ltd. is the only public sector undertaking in the Central sector for the manufacture of cement. It has nine factories, spread over six states—one each in Karnataka, Himachal Pradesh, Assam and Haryana, two in Andhra Pradesh and three in Madhya Pradesh.

PAPER AND PAPER BOARD

The paper industry encompassing pulp, paper and paper board and newsprint is one of the industries of basic importance to the country. In 1950-51, when the country embarked on its planned programme of development, the capacity for paper and paper board was 1,36,600 tonnes installed in seventeen manufacturing mills. The industry has made rapid progress since then and as on 1 January 1983 there were 177 units with a total annual installed capacity of 19.15 lakh tonnes.

The Hindustan Paper Corporation Ltd. (HPC), Calcutta, a public sector undertaking, was set up in 1970 to establish pulp and paper projects in the country. The Corporation has established a pulp and paper project in Nagaland with a capacity of 33,000 tonnes per annum. The project was commissioned for commercial production during 1982. The Corporation has also commissioned a newsprint project in Kerala with an installed capacity of 80,000 tonnes per annum during 1982. Besides, the HPC is engaged in the implementation of two major pulp and paper projects each with a capacity of one lakh tonnes per annum in the districts of Nowgong and Cachar in Assam. These projects are likely to be completed by 1984-85.

Newsprint

The National Newsprint and Paper Mills Ltd., Nepanagar, Madhya Pradesh, was till recently the only unit in the country manufacturing newsprint. The mill, which is now in the public sector, started production in 1955. Against an installed capacity of 67,500 tonnes per annum, the mill has produced 57,310 tonnes of newsprint during 1982-83. The newsprint project of the Mysore Paper Mills in Karnataka (a state government undertaking) with a capacity of 75,000 tonnes per annum and the Kerala Newsprint Project of the Hindustan Paper Corporation, a public sector project, with a capacity of 80,000 tonnes per annum, went into production during 1981 and 1982, respectively.

Photo Paper and Films.

The Hindustan Photo Films Manufacturing Co. Ltd. was set up at Ootacamund in 1960 by the Government of India for manufacturing cine, X-ray, roll and graphic art films and photo paper. The Company has a total installed capacity (for integrated production as well as Jumbo conversion) of 123 lakh sq metres. During 1982-83 it obtained a production of 113.28 lakh sq metres of various kinds of photo sensitised material valued at Rs 82.62 crore.

IRON AND STEEL

The earliest successful attempt to manufacture iron and steel by modern methods was made in the country in 1874. But the first efforts at large scale production got under way when Tata Iron and Steel Company (TISCO) was set up at Jamshedpur in 1907. This was followed by the establishment of the Indian Iron and Steel Company (IISCO)

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at Burnpur in 1919. The first unit in the public sector, now known as the Visvesvaraya Iron and Steel Works Ltd., started functioning at Bhadravati in 1923.

After Independence, the development of the steel industry was considered during the First Plan but it was only in the Second Plan that work started to set up three integrated steel projects each with 10 lakh ingot tonnes capacity at Bhilai, Durgapur and Rourkela. An expansion programme to double the capacity of the two private sector steel plants, namely, TISCO and IISCO to 20 lakh tonnes and 10 lakh tonnes respectively was also taken in hand. The three plants in the public sector came into operation in stages between 1956 and 1962 and the expansion of the private sector factories was completed in 1959. In the Third Plan, the emphasis was on expansion of the three public sector steel plants and the setting up of new steel works at Bokaro. The Fourth Plan steel programme was based on the maximum utilisation of existing steel capacity and preparation of plans to set up three new steel plants at Salem, Tamil Nadu; Vijayanagar, Karnataka, and Visakhapatnam, Andhra Pradesh, to create additional steel capacity to meet the requirements in the Fifth Plan.

However, it was only by the close of the Fifth Plan which terminated a year ahead of the schedule on 31 March 1978 that there was addition to steel making capacity of the order of 17 lakh tonnes with the commissioning of the Bokaro Steel Plant on 26 February 1978. The total installed ingot steel capacity which stood at 89 lakh tonnes as on 31 March 1974 had increased to 116 lakh tonnes by 31 March 1980.

The management of IISCO was taken over by the Government on 14 July 1972 and the ownership of the company acquired on the 17 July 1976 with a view to improve its working.

There are at present six integrated steel plants in the country, five in the public sector and one in the private sector. The capacity of the six integrated steel plants has been shown in table 18.7.

TABLE 18·7
RATED CAPACITY OF STEEL PLANTS

('000 tonnes)

Plant	Rated Capacity Ingot steel	Saleable steel
Public Sector		
Bhilai	2,500	1,965
Durgapur	1,600	1,239
Rourkela	1,800	1,225
Bokaro	2,500	1,971
IISCO	1,000	800
Private Sector		
TISCO	2,000	1,500
Total	11,400	8,700

Bhilai and Bokaro Steel Plants are presently under expansion to annual capacity of 40 lakh ingot tonnes each. The expansion of Bhilai and Bokaro Steel Plants is likely to be completed by the end of 1984. Proposals are presently under consideration to further increase the capacity of these plants by introducing technological improvements and provision of balancing and other facilities with minimum capital outlay.

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Besides the mild steel plants, there is an alloy steel plant at Durgapur in the public sector with an annual capacity of 1,00,000 tonnes of ingots. The plant is now being expanded to a capacity of 1,60,000 tonnes. The Visvesvaraya Iron and Steel Ltd. (VISL), at Bhadravati with a capacity of 77,000 tonnes of alloy and special steel and 47,000 tonnes of mild steel ingot is owned by the Central Government and the Karnataka Government. A forge plant has been installed and it will increase capacity for alloy and special steel at VISL by 5,000 tonnes.

To augment supply of power to the steel plants at Durgapur and Rourkela, Government have sanctioned installation of 2×60 mw captive power plants each at Durgapur and Rourkela. The work on this is in progress.

Mini Steel Plants

The electric arc furnace units, popularly known as mini steel plants, produce steel based on steel scrap/sponge iron. These units constitute an important segment of the steel industry in the country. While the integrated steel plants mainly produce mild steel in bulk quantities, the mini steel plants produce mild steel as well as alloy steel which could not be economically produced by the integrated steel plants.

At present there are 169 mini steel plants with a total licensed capacity of over 44 lakh tonnes per annum of which 145 units have been in production. The other units are at various stages of implementation. Besides these units, there are some electric arc furnace units licences for manufacture of castings which have been allowed to diversify their production into steel ingots.

The production from mini steel plants has been steadily increasing and during 1982-83, it reached a record of over 20.5 lakh tonnes of steel ingots.

Sponge Iron

Sponge iron is mainly used as a substitute raw material for steel milling scrap in mini steel plants.

In view of the importance of utilizing our large non-coking coal reserves for steel making and for conserving coking coal resources, a special project has been taken up at Kothagudam in Andhra Pradesh. This is a UNDP-assisted project and is based on imported technology, with a capacity of 30,000 tonnes per annum. The plant is in production and the capacity is expanded up to 60,000 tonnes per annum.

Seeing the need of the sponge iron production for alternative and better raw material feed for electric arc furnace units and the successful operations of the demonstration sponge iron plants, Government has already announced the policy and the guidelines for consideration of application for grant of industrial licences for sponge iron making capacities.

Steel Authority of India

Prior to 1973, of the four public sector steel plants, the plants at Bhilai, Durgapur and Rourkela were owned and managed by the Hindustan Steel Ltd. (HSL), and the plants at Bokaro by Bokaro Steel Ltd. (BSL). HSL and BSL became the wholly owned subsidiaries of SAIL in January 1973 when Steel Authority of India Ltd. (SAIL), was incorporated as a holding company for steel and associated input industries.

The organisation, structure and the functioning of the public sector steel plants and SAIL were reviewed by the Government in October 1977. Since all major policy issues and development plans of the steel industry in the public sector were approved by Government and all

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funds for capital schemes were provided by it through budgetary support, the interposition of a holding company between the Ministry of Steel and the operating units did not serve any useful purpose, it was felt. The concept of bringing these plants under the overall responsibility of providing direction, supervision and auxiliary services to the operating units was thus mooted.

The public sector steel industry was accordingly restructured through the Public Sector Iron and Steel Companies (Restructuring) and Miscellaneous Provisions Act, 1978, effective from 1 May 1978. SAIL thus emerged as the main integrated steel company with five public sector steel plants, including IISCO as its constituent unit. This is intended to ensure better management and improved efficiency in their working. Its authorised capital was Rs 4,000 crore and paid up capital Rs 3,177.16 crore as on 31 March 1982.

The production of ingot steel, saleable steel and pig iron for sale from the integrated steel plants in 1980-81, 1981-82 and 1982-83 is shown in table 18.8.

TABLE 18·8
PRODUCTION OF IRON AND STEEL

('000 tonnes)

Plant	Ingot Steel			Saleable Steel			Pig Iron for Sale		
	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83
Bhilai	2,041	2,115	2,130	1,817	1,819	1,838	430	504	457
Durgapur	741	930	952	598	782	812	102	88	105
Rourkela	1,165	1,203	1,144	985	1,091	992	12	66	29
Bokaro	923	1,792	1,829	844	1,472	1,529	730	452	393
IISCO	609	600	624	523	488	500	64	59	119
TISCO	1,874	1,956	1,946	1,537	1,606	1,620	—	—	—

Salem Steel Projct

The Salem Steel Plant, for the production of 32,000 tonnes of cold rolled stainless steel sheets and strips, was commissioned in September 1981. It started commercial production on 13 March 1982.

Visakhapatnam Steel Project

Visakhapatnam Steel Project (VSP) is the first shore-based integrated steel project being set up in India. The agreement between India and Soviet Union provides for techno-economic cooperation in setting up of the project near the Visakhapatnam port in Andhra Pradesh.

Production capacity of 12 lakh tonnes liquid steel is scheduled to be completed by early 1986 and the entire project of 34 lakh tonnes liquid steel per annum capacity will be completed by the end of 1987.

Most modern technology of coke and iron and steel production will be provided in the VSP. For the first time, 7 metre tall coke oven batteries with dry quenching facilities and bigger furnaces of 3,200 cu. m. each with bell-less charging and cent per cent continuous casting facilities, will be set up in India.

The total cost of the project is estimated at Rs 3,897.28 crore with a foreign exchange component of Rs 679.50 crore. Detailed project report for VSP based on direct reduction technology is under preparation and site preparation is under way. The plant will be located at Dubari about 120 km inland from Paradip in Orissa. The Orissa Government is to acquire six thousand hectares of land for the plant and township.

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Metallurgical and Engineering Consultants

The Metallurgical & Engineering Consultants (India) Ltd. (MECON), earlier known as Central Engineering and Design Bureau was formed in 1959 as a department of the then Hindustan Steel Ltd., to provide consultancy and engineering services in the field of iron and steel. In 1973, MECON was incorporated as an independent company and became a subsidiary of SAIL. With the restructuring of public sector iron and steel industry in 1978, MECON was delinked from SAIL and placed directly under the Ministry of Steel and Mines. Today MECON is one of the leading design, engineering and consultancy organisation in India having a total strength of over 3,500 personnel out of which 2,300 are qualified engineers and other technical staff.

Specialised in the field of iron and steel plants and rolling mills, MECON caters equally well to the needs of non-ferrous metals like aluminium, zinc, lead and copper; mineral exploration, mining and raw materials, refractories, power plants, coal, chemicals and other allied industries such as ferro alloys, sponge iron and pellet plant, etc. Within the country in the field of iron and steel, MECON has been responsible for the planning and expansion of the engineering capacity of all state-owned iron and steel plants which adds up to about 70 lakh tonnes per year of crude steel. Outside India, MECON has been providing project management, monitoring and technical services for two integrated steel plants of 23 lakh tonnes capacity in Nigeria. One of the plants at Warri of 10 lakh tonnes capacity based on sponge iron route has already been commissioned. MECON had also successfully completed several consultancy assignments in Dubai, Abu Dhabi, Liberia, Vietnam, Iraq, Syria, Indonesia and Bangladesh.

MECON has gone in a major way to expand their activities beyond the normal consultancy, design and engineering work. They have entered into high technology areas of designing equipment and their systems. MECON has developed its own design of coke oven batteries and a number of MECON designed coke oven batteries are working in existing steel plants at Durgapur and Rourkela. To further strengthen this technology base, MECON has obtained under licence latest technology for 7 metre tall coke oven batteries and Dry Coke Cooling Plants. This new technology, being introduced for the first time in the country at Visakhapatnam Steel Project, has the advantage of recovering the lost energy and better pollution control.

In the area of rolling mills and processing lines, which form almost 30 to 45 per cent of investment in an integrated steel plant, MECON has developed large scale expertise for the equipment and system design, under know-how license agreements. MECON has already designed and supplied major rolling mills for Rourkela Steel Plant, Salem Steel Plant, Bokaro Steel Plant and others.

MECON is now handling major iron and steel and other projects in India and abroad having an investment cost of Rs 6,000 crore. Similarly, MECON is handling contract engineering work in the areas of rolling mills and coke oven and having an order value of around Rs 450 crore.

Metal Scrap Trade Corporation

The Metal Scrap Trade Corporation Ltd. (MSTC), a Central Government undertaking, is the canalising agency for export and import of ferrous melting scrap; import of re-rollable scrap, old ships and sponge iron. MSTC is also the canalising agency for export of ferrous scrap. The Company has an authorised capital of Rs 2 crore.

During 1981-82 the Corporation recorded an all-round growth in

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its activities and showed a profit of Rs 246.99 lakh (before tax) as against Rs 121.54 lakh during 1980-81.

Ferro Scrap Nigam

The Ferro Scrap Nigam Ltd. is a joint sector company, in which MSTC has 60 per cent equity participation, the remaining 40 per cent being held by an US firm. The Company undertakes recovery of scrap from the slag/refuse dump in the steel plants at Jamshedpur, Rourkela and Burnpur. It is now starting its operations at Bhilai also.

ENGINEERING INDUSTRY

The Indian engineering industry is now in a position to meet the bulk of the requirement of capital goods for various sectors of the economy. The industry, over a period of three decades, has turned a situation of near total dependence on imports to a position of self-reliance and the engineering goods are now being increasingly exported. Thus, whereas during the Fourth Plan, almost 75 per cent of the power generating capacity installed in the country was based on imported equipment, the trend was reversed during Fifth Plan, when indigenous contribution amounted to 85 per cent. Similar has been the experience in steel and other sectors of the economy.

With the growth of engineering industries during the last three decades of planned development, enlargement of production capabilities, attainment of technical competence, sophistication and product diversification, India's engineering exports have emerged as one of the most important sectors in India's export profile. From a beginning of Rs 5 crore in 1956-57, engineering exports have reached more than Rs 900 crore in 1980-81 which improved further to Rs 1,060 crore in 1981-82. Share of export of capital goods and turnkey projects has increased from 12 per cent in 1956-57 to 38 per cent in 1981-82 and this is expected to go up to 50 per cent by the end of this decade.

Heavy Engineering, Heavy Mechanical and Industrial Machinery

There are a large number of units in the public and private sector which are manufacturing steel plant equipment, mining equipment, process equipment for fertilizer, chemical, petro-chemical and petroleum industries, transport equipment including wagons for railways and other mechanical equipment. In the public sector, Heavy Engineering Corporation, Ranchi, incorporated in 1958, is engaged in the production of steel plant equipment. It has three plants—Heavy Machine Building Plant, Foundry Forge Plant and Heavy Machine Tool Plant. Production from these plants totalled Rs 128 crore during 1982-83 as against Rs 64.33 crore in 1980-81.

The Mining and Allied Machinery Corporation, Durgapur, since its inception in 1965, produced equipment worth about Rs 250 crore for meeting the needs of mining and allied sectors.

The Bharat Heavy Plate & Vessels Ltd. (BHPV), Visakhapatnam, another unit in the public sector, incorporated in 1966, is engaged in manufacture of heat exchangers, pressure vessels, multilayer vessels, oxygen plants, cryogenic equipment, industrial boilers, etc., for meeting the indigenous needs of the fertilizer, chemical, petro-chemical, petroleum and other allied industries. Their production during 1982-83 was valued at Rs 42.16 crore. The Bharat Pumps & Compressors Ltd., Allahabad, is meeting indigenous needs of reciprocating and centrifugal pumps and compressors for various industries. Richardson & Cruddas Ltd., Triveni Structurals Ltd., Tungabhadra Steel Products Ltd., Braithwaites and Jessop & Co. are the heavy industry public sector units engaged in design and fabrication of steel structurals for civil construction and electricity transmission towers.

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There are four units in the public sector, producing wagons for railways. These are : Burn Standard Co. Ltd., Braithwaite, Jessop and Co. Ltd. and Bharat Wagon and Engineering Co. Ltd. Besides wagons, Burn Standard Co. Ltd. is also producing refractories at its various plants in West Bengal, Madhya Pradesh, Bihar and Tamil Nadu. Jessops are producing cranes, structurals and paper making machinery at their Calcutta works.

Transport Equipment and Tractors

In the transport sector, production of commercial vehicles during 1982-83 was 86,011, production of cars 43,661, of jeeps 21,789, and of railway wagons 13,045. Production of agricultural tractors was 62,576 during 1982-83.

Machine Tools

The production of machine tools has increased from Rs 6 crore in 1960 to Rs 250 crore in 1981-82 in the organised sector, both in public and private. Production of machine tools during 1982-83 was Rs 266 crore. Exports constitute about 15 per cent of the total production of machine tools in the country.

The Hindustan Machine Tools Ltd. (HMT), is a major public sector unit, manufacturing machine tools at its various plants at Bangalore, Hyderabad, Pinjore and Ajmer. Total production of machine tools including presses from the various plants of HMT was Rs 114 crore during 1982-83.

The Central Machine Tool Institute, Bangalore, a grantee institution of the Government of India, is a premier research and development organisation in the country providing technical assistance to the machine tool industry and engineering industry by way of development of new designs, evaluation of prototypes, research and testing of machine tools, etc.

Heavy Electrical Industries

The electrical power equipment industry in India today is well equipped to cover almost the entire domestic requirements. The Bharat Heavy Electricals Ltd. (BHEL), a public sector undertaking, is the major producer of power generating equipment in the country. It has its manufacturing plants at Bhopal, Tiruchy, Hyderabad, Hardwar and Bangalore. About 175 lakh kw of BHEL manufactured power generation equipment has been commissioned till March 1983 constituting nearly 50 per cent of the total installed power generating capacity in the country. The total production of BHEL including power generation, transmission and distribution equipment, industrial and traction motors, controls, etc., was valued at Rs 1,170 crore during 1982-83, showing a growth of 27 per cent over the production of Rs 938 crore in 1981-82.

FERTILIZERS

Fertilizer is the key input in increasing agricultural productivity. The fertilizer industry which was in a nascent stage at the time of commencement of planned era in 1951-52 with a meagre capacity of about 85,000 tonnes of nitrogen and 63,000 tonnes of phosphate now occupies the fourth position in the world, next only to USA, China and USSR. As on 31 March 1983 there were 35 major plants besides 36 smaller Single Super Phosphate plants operating in public, private and cooperative sector. The total capacity has reached 51.44 lakh tonnes of nitrogen and 14.18 lakh tonnes of phosphate. The production of both nitrogen and phosphate has witnessed a steep increase. The production of nitrogen has gone up from mere 16,000

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tonnes in 1950-51 to phenomenal level of 34.25 lakh tonnes and that of phosphate from 11,000 tonnes to 9.8 lakh tonnes in 1982-83.

Five major fertilizer projects and few expansion schemes in the existing plants are at various stages of implementation. Together they account for total additional capacity of 20.6 lakh tonnes of nitrogen and 9.8 lakh tonnes of phosphate. During 1982-83, two fertilizer projects, *viz.*, Trombay-V in the public sector and Bharuch in the private sector were completed. With the implementation of existing schemes the fertilizer capacity would go up to about 72 lakh tonnes of nitrogen and 24 lakh tonnes of phosphate by 1986-87.

Public sector plays a dominant role in the fertilizer industry. There are seven fertilizer companies in the public sector operating 19 plants and executing four fertilizer projects. The share of public sector in the total capacity during 1982-83 was 58 per cent and in production was 46.3 per cent. To overcome the problems of sustained power availability for fertilizer plants Government has decided to provide captive power plants for the fertilizer units. Various other schemes are also being implemented to improve the performance of the existing plants.

The country is now manufacturing sophisticated equipment for fertilizers. Service organisations for detailed engineering, erection and supervision have also been created in the country. Bharat Heavy Electricals Ltd. and Bharat Heavy Plates & Vessels Ltd. are now producing wide range of equipments for fertilizer plants. Project India Ltd., an independent organisation in the public sector, and Fertilizer Equipment & Design Organisation are the two service organisations engaged in the implementation of fertilizer projects.

The Sixth Plan target of fertilizer production is 42 lakh tonnes of nitrogen and 14 lakh tonnes of phosphate by 1984-85. The total investment in the fertilizer industry is estimated to be of Rs 4,000 crore which is likely to go up to Rs 12,000 crore by 1986-87.

CHEMICALS

Chemical industry plays a pivotal role in the Indian economy. It ranks fourth next only to iron and steel, engineering and textile industries. The total investment in chemical industry has increased from a level of Rs 300 crore in 1961 to about Rs 5,500 crore in 1982.

The basic manufacture of pesticides commenced in India in 1952 with the setting up of the plant at Rishra (Calcutta) for the manufacture of Benzene Hexachloride (BHC) which was followed by DDT plant in 1954 in Delhi. Today 44 technical grade pesticides are being manufactured in the country. The total installed capacity for these pesticides as on 1 August 1982 was 10.30 lakh tonnes.

The Hindustan Insecticides Ltd., incorporated in 1954, is a major producer of DDT and BHC. It has two factories, one in Delhi and the other in Alwaye. In 1982-83, the Company has contributed cent per cent in the total production of DDT.

The organic chemical industry in India has made steady progress. The Hindustan Organic Chemicals, an independent company for the manufacture of organic chemicals and intermediates required for drugs, dyestuffs and plastic industry, was set up in 1960 at Rasayani in Maharashtra. The Company is presently manufacturing 13 chemical groups.

The production of basic chemicals during 1982-83 was 5,200

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tonnes of DDT, 35,000 tonnes of BHC, 6,50,000 tonnes of caustic soda, 6,36,000 tonnes of soda ash and 5,600 tonnes of malathion. The Sixth Plan targets for these chemicals have been set at 10,000 tonnes of DDT, 43,000 tonnes of BHC, 8,50,000 tonnes each of caustic soda and soda ash and 7,500 tonnes of malathion.

DRUGS AND PHARMACEUTICALS

The drugs and pharmaceutical industry in India has achieved a phenomenal growth since Independence both in the public and private sectors and is now well-organised, producing a wide range of bulk drugs and more than 5,000 formulations. In 1947, the gross value of production of drugs and pharmaceuticals in the country was of the order of Rs 10 crore which has risen to about Rs 1,545 crore in 1982-83. The production of bulk drugs and intermediates has also shown significant improvement. The total value of bulk drugs produced in 1982-83 was Rs 325 crore as against the nominal level before Independence. The growth in the pharmaceutical industry has put India ahead of any other country in the third world. The Indian industry has now reached a stage of operation comparable to international standards in production technology and the quality of products. A wide range of curative and preventive medicines and vaccines made available by the industry has played a major role in the improvement of health standards in the country since 1947, specially in the control of communicable diseases, such as, cholera, plague, small-pox, tuberculosis, besides malaria.

In the development of the drug industry, the public sector has played a significant role. The first public sector company, Hindustan Antibiotics Ltd. was set up in 1954 at Pimpri near Pune for the production of Penicillin. The Company is now producing several antibiotics. Another public sector company, Indian Drugs & Pharmaceuticals Ltd. (IDPL), was set up in 1961. The Company is now operating five plants producing a wide range of antibiotics, synthetic drugs, surgical instruments, drug intermediates and formulations. These companies in collaboration with the state industrial corporations have also set up various formulation units in the states.

The Government have nationalised Smith Stanistreet & Company Ltd., Calcutta, from 1 October 1977 and Bengal Chemicals & Pharmaceutical Works Ltd., Calcutta from 15 December 1980. During 1982-83, total value of bulk drug production by the public sector companies is likely to be nearly 25 per cent of total production of bulk drugs in the country.

The drugs and pharmaceuticals industry has also entered export market. At the time of Independence, the exports were only negligible and that too were confined to mostly herbs and their extracts. Since then, the exports of drugs and pharmaceuticals have been showing an increasing trend. The total value of exports during 1981-82 was Rs 95.21 crore, as against Rs 76.18 crore in 1980-81.

PETRO-CHEMICALS

The important role of petrochemicals industry in India's national economy can be judged from the wide range of chemicals that can be produced and the vast field of their application. Petrochemicals are manufactured from petroleum feedstocks like gas and naphtha and can also be derived from alcohol and calcium carbide. The industry is comparatively of recent origin and a beginning was made in India with the establishment of a small naphtha cracker unit in Bombay by a private sector undertaking in 1967. A large petrochemicals complex was set

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up in the public sector in Baroda and was commissioned in the years 1974 to 1978. This complex, called the Indian Petrochemicals Corporation Ltd., has now gone into full production and its turnover during 1982-83 was about Rs 440 crore, gross profits being Rs 80 crore. Another major petrochemical complex is under construction at Bongaigaon, Assam. The Bongaigaon Refinery and Petrochemicals Ltd. was registered in 1974 as a wholly owned Government of India undertaking. Its refinery portion was commissioned between 1979 and 1981; the petrochemicals portion is under construction.

MINING AND MINERALS

India is richly endowed with minerals. The important occurrences of the principal minerals found in the country along with their estimated reserves are as follows:

Bauxite Important deposits occur in Andhra Pradesh, Bihar, Goa, Gujarat, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh. The reserves of bauxite of all grades have been estimated at 248.91 crore tonnes.

Coal and Lignite Vast deposits of coal of Gondwana formations occur in Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Orissa and West Bengal and of the tertiary formations in Arunachal Pradesh, Assam, Meghalaya, Jammu and Kashmir and Nagaland. The overall reserves of coal, both coking and non-coking, have been estimated at 8,643 crore tonnes. Of these, the reserves of coking coal in the Gondawana coal-fields alone are about 1,875 crore tonnes.

Significant reserves of lignite occur in Gujarat, Jammu and Kashmir, Rajasthan and Tamil Nadu. The total estimated reserves are about 210 crore tonnes, of which Neyveli field in Tamil Nadu alone contains 192 crore tonnes.

Chromite Deposits of economic significance occur in Andhra Pradesh, Bihar, Karnataka, Maharashtra, Manipur, Orissa and Tamil Nadu. The total reserves of *in situ* chromite, including lump and fine, are about 11.12 crore tonnes.

Copper Ore Important copper ore bearing areas are Guntur and Khammam districts of Andhra Pradesh; Singhbhum district of Bihar; Banaskantha district of Gujarat; Chitradurga, Chikmagalur, Hassan and Raichur districts of Karnataka; Balaghat district of Madhya Pradesh; Alwar, Bhilwara, Jhunjhunu and Sirohi districts of Rajasthan; and Sikkim. The aggregate reserves have been estimated at about 45.52 crore tonnes, with a metal content of 56.62 lakh tonnes.

Diamond The Panna diamond belt is the only diamond producing area in the country. The diamond reserves in Panna field are placed at 5,79,000 carats.

Gold There are three groups of gold mines in the country, *viz.*, Ramagiri gold field, Anantapur district, Andhra Pradesh; Kolar gold field, Kolar district and Hutti mine, Raichur district in Karnataka. Karnataka is the only gold producing state in the country. The estimated

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gold ore reserves in the country are placed at 87 lakh tonnes with a total gold content of 64.93 tonnes, out of which Karnataka has about 58 lakh tonnes of gold ore reserve with a total metal content of 49.24 tonnes.

Gypsum Deposits of gypsum are estimated at 120.45 crore tonnes in the country of which Rajasthan, Jammu and Kashmir and Tamil Nadu have 107.18, 10.50 and 1.77 crore tonnes, respectively.

Ilmenite It occurs mainly in the eastern and western coasts of India, associated with beach sands. Of the workable deposits of this type, those in Kerala, Orissa and Tamil Nadu are important. Total inferred reserves of ilmenite in beach sands have been put at over 5.4 crore tonnes.

Iron Ore Large deposits occur in Bihar, Goa, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu and Orissa. The estimated reserves of iron ore in the country are placed at 1,757 crore tonnes of which 1,147 crore tonnes are hematite ore and 610 crore tonnes magnitite ore.

Lead-Zinc Ore The known reserves of lead-zinc ore are located in Andhra Pradesh, Gujarat, Orissa and Rajasthan. The total reserves have been estimated at about 35 crore tonnes which in terms of metal content amount to 1.84 crore tonnes of lead and zinc.

Manganese Ore Rich deposits of manganese ore are located in Andhra Pradesh, Goa, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Orissa. The total reserves are placed at 11.66 crore tonnes.

Mica Economic deposits of mica are found in three important belts in Andhra Pradesh, Bihar and Rajasthan.

Nickel Ore Nickel ore is found in Cuttack, Keonjhar and Mayurbhanj districts of Orissa. The total reserves are placed at 16 crore tonnes.

Oil The potential oil-bearing areas are located in Assam, Tripura, Manipur, West Bengal, Ganga valley, Himachal Pradesh, Kachchh and off-shore areas adjoining West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra and Gujarat. The total known reserves of crude are estimated at 46.85 crore tonnes.

Phosphate Minerals Deposits of phosphorite are located in Chhatarpur, Sagar and Jhabua districts of Madhya Pradesh; Udaipur, Jaisalmer and Banswara districts of Rajasthan and Dehradun, Tehri and Lalitpur districts of Uttar Pradesh. Besides, apatite deposits of commercial importance are reported to occur in Bihar, Andhra Pradesh, Rajasthan, West Bengal and Tamil Nadu. The estimated reserves of rock phosphate in the country are placed at 13.86 crore tonnes.

Refractory Minerals Important deposits of magnesite are found in Salem district of Tamil Nadu; Almora, Chamoli and Pithoragarh districts of Uttar Pradesh and in Mysore and Hassan districts of Karnataka. The total estimated reserves are about 21 crore tonnes. Kyanite and sillimanite are the other important refractory minerals. Kyanite is located in

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Singhbhum district of Bihar; Bhandara district of Maharashtra; and in Karnataka. The total estimated reserves are about 30 lakh tonnes. Sillimanite deposits are located in Meghalaya, Maharashtra and Madhya Pradesh besides large placer sillimanite occurs along with ilmenite and rutile in the beach sand deposits of Kerala, Orissa and Tamil Nadu. The total estimated reserves of sillimanite are 120 lakh tonnes.

Mineral Production

The total value of mineral production (excluding atomic minerals) increased considerably during the last decade, from Rs 489 crore in 1970 to Rs 3,612 crore in 1981 and to Rs 5,055 crore in 1982. The share of the mineral fuels was the largest, being Rs 4,422 crore in 1982, followed by non-metallic minerals Rs 355 crore and metallic minerals Rs 278 crore.

The total value of mineral production and the index of mineral production from 1976 to 1982 are given in table 18.9. The data on quantity and value of mineral production (by minerals) during 1981 and 1982 are shown in table 18.10.

TABLE 18.9
VALUE OF MINERAL PRODUCTION

Year	1976	1977	1978	1979	1980	1981	1982
1. Value of mineral production (Rs crore)	1,364.9	1,466.4	1,561.7	1,901.6	2,255.7	3,611.9	5,055.2
2. Index of Mineral Production (Base 1970-100)	138	142	144	150	145	172	188

Note : Excludes atomic minerals.

(Value Rs '000)

TABLE 18.10
QUANTITY AND VALUE OF MINERAL PRODUCTION

Mineral	Unit of Quantity	1981		1982 (P)	
		Quantity	Value	Quantity	Value
1	2	3	4	5	6
All Minerals :					
Total value			36,118,673		50,552,989
Fuels : Value			30,005,314		44,223,561
Coal	'000 tonne	123,104	17,485,737	128,225	20,201,766
Lignite	,,	5,966	4,96,298	6,675	637,896
Natural gas (1)	million cub. metre	1,997	68,780(e)	2,412	84,315(e)
Petroleum crude	'000 tonne	14,925	11,954,499	19,712	23,299,584
Metallic Minerals :					
Value . .			2,634,799		2,780,602
Bauxite . .	,,	1,923	87,754	1,854	87,886
Chromite .	,,	336	146,741	339	149,412
Copper ore .	,,	2,107	347,270	2,018	331,601
Diaspore .	tonne	6,099	2,238	5,802	1,752
Gold . .	kg	2,495	266,356	2,238	247,685
Iron Ore. .	'000 tonne	41,354	1,287,839	40,902*	1,401,266
Manganese Ore	,,	1,526	240,020	1,448	299,571
Lead concentrate	tonne	20,017	61,908	21,747	69,933
Silver . .	kg	17,298	38,308	14,404	32,081
Tungsten concentrate .	,,	38,837	3,316	53,529	4,432
Zinc concentrate	tonne	52,876	153,049	52,839	154,983

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(1)	(2)	(3)	(4)	(5)	(6)
Non-Metallic Minerals : Value			3,478,560		3,548,826
Agate	tonne	1,476	354	1,062	277
Apatite	,,	16,862	3,573	18,319	3,835
Phosphorite	,,	550,749	242,705	541,667(e)	233,168(e)
Asbestos	,,	24,515	14,297	26,761	11,181
Ball clay	,,	120,154	5,517	114,782	5,268
Barytes	,,	399,013	37,866	325,368	27,541
Chalk	,,	85,982	7,340	87,057	7,346
Clay (others)	,,	56,373	723	33,445	415
Calcite	,,	26,806	2,440	19,101	1,712
Corundum	,,	1,292	895	1,355	870
Diamond	carat	14,542	17,588	12,913	23,750
Dolomite	'000 tonne	2,072	95,848	2,133	97,805
Emerald (crude)	carat	—	—	6,853	N.D.
Felspar	tonne	60,752	2,384	44,854	1,592
Fire clay[2]	,,	833,148	18,434	769,495	19,184
Fluorite (graded)	,,	4,185	4,718	6,785	8,371
Fluorite concentrate	,,	18,720	28,879	18,117	27,845
Garnet (gem)	kg	1,249	13	2,249	22
Garnet abrasive	tonne	3,257	737	5,429	1,751
Graphite r.o.m.	,,	59,021	5,674	52,376	5,950
Gypsum	,,	947,663	25,623	970,365	34,280
Jaspar	,,	3,356	245	1,985	128
Kaolin	,,	508,886	46,587	531,089	48,651
Kyanite	,,	38,868	14,116	33,951	13,131
Limestone	'000 tonne	31,848	838,979	33,462	924,459
Lime shell	,,	123	8,938	130	9,888
Calcareous sand	,,	685	8,277	669	8,092
Magnesite	tonne	468,118	114,184	407,071	91,228
Mica (crude) (P)	,,	8,375	30,411	8,584	33,095
Mica (waste & scrap)**	tonne	4,310	N.A.	4,377	N.A.
Ochre	,,	89,399	2,289	84,789	2,020
Pyrites	,,	57,598	20,832	55,853	21,154
Sulphur	,,	4,170	6,567	5,473(e)	7,128(e)
Sillimanite	,,	12,335	5,868	13,066	6,180
Pyrophyllite	,,	40,238	1,536	43,568	2,137
Quartz	,,	187,813	6,494	213,970	7,792
Quartzite	,,	103,594	4,780	118,238	14,173
Silica sand	,,	617,667	16,096	521,243	13,573
Moulding sand	,,	103,783	813	87,987	717
Sand (others)	,,	1,288,284	4,207	1,254,054	4,048
Salt (rock)	,,	4,326	1,082	4,121	1,088
Slate	,,	9,939	1,209	4,770	667
Steatite	,,	341,316	25,356	300,338	22,771
Verniculite	,,	3,438	889	2,068	627
Wollostanite	,,	15,915	2,111	20,725	2,787
Minor Minerals Value			1,800,980		1,800,980(e)

(p) = Provisional.

(e) = Estimated

N. A. = Not available.

N. D. = Not Determined.

*Excludes 702,000 tonnes of iron ores concentrates reported from Karnataka.

**It includes mine waste and waste obtained while dressing of crude mica at mine sites.

[1]Relates to gas utilised.

[2]Excludes the production of fire clay if any, recovered incidental to coal mining.

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Exploration of Minerals

Some of the organisations and public sector undertakings functioning in the country for the mapping, exploration, and exploitation of minerals are as follows:

Geological Survey of India

The Geological Survey of India (GSI) with headquarters at Calcutta was established in 1851, largely for prospecting coal in the eastern India. The work was diversified in time and was intensified after Independence to cater to the growing needs of industrialisation. Now GSI is the principal agency entrusted with all the geological activities in the country.

Indian Bureau of Mines

The Indian Bureau of Mines (IBM) is a multi-disciplinary scientific and technical organisation under the Department of Mines, Ministry of Steel and Mines. It is primarily responsible for the promotion, conservation and scientific development of mineral resources of the country (other than coal, atomic minerals, petroleum and natural gas and minor minerals). It conducts research on mineral beneficiation of low grade ores and minerals and on special mining problems and work studies to aid improvements in productivity. IBM provides technical consultancy services in the fields of geology, mining and ore dressing to all categories of mines in public as well as private sectors. It conducts market surveys to assist the mineral trade in the marketing of minerals and prepare Inventory of Mineral Resources.

The IBM functions as a data bank on mines and minerals and publishes statistical information and technical monograph on minerals and bulletins on different subjects of mining and mineral industry. It imparts training to the scientific and technical personnel from the Government departments and other organisations. The IBM advises the Government on all matters relating to mines and minerals, both on land and off-shore.

The IBM has its headquarters at Nagpur and regional offices at Ajmer, Bangalore, Calcutta, Dehra Dun, Goa, Hyderabad, Hazaribagh, Jabalpur, Madras and Udaipur. It has a well-equipped laboratory and pilot plant for ore dressing research at Nagpur. A regional ore dressing laboratory has been established at Ajmer.

Mineral Exploration Corporation

The Mineral Exploration Corporation Ltd. (MECL), was registered in 1972 for undertaking detailed exploration and providing consultancy/expert services in turnkey mineral projects. Besides these primary functions, the Corporation is engaged in mine construction, geotechnical work and drilling for tubewell construction.

The Corporation carries out mineral exploration on behalf of Government of India as promotional activity and for public sector and private sector enterprises and state governments on contractual basis.

The Corporation had achieved 11.9 lakh metres of drilling and 55,440 metres of exploratory mining till 31 March 1983 since its inception.

MECL has so far handled 48 promotional projects. It is actively engaged in exploration of coal, copper, bauxite, tungsten, limestone on contractual basis and for gold, copper, diamond, lead-zinc, bauxite and tungsten as promotional projects, besides assisting in contractual geotechnical investigations in Madhya Pradesh, Jammu and Kashmir, Arunachal Pradesh and Mizoram, tubewell construction in Orissa and mine construction in Rajasthan.

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National Mineral Development Corporation Ltd.

The National Mineral Development Corporation Ltd. (NMDC) was set up in 1958 for developing and exploiting the mineral resources of the country other than coal, oil, natural gas and atomic minerals. On the production side, the activities of NMDC are confined to iron ore and diamond. On the exploration, planning and development sides its investigation and consultancy wings are dealing with various minerals. The authorised capital of the Corporation is Rs 150 crore.

Manganese Ore (India) Ltd.

Manganese Ore (India) Ltd. (MOIL), is a fully owned government company. The shares are held by the Government of India and Maharashtra and Madhya Pradesh Governments. MOIL is the largest producer of manganese ore in the country. Till 1978-79, MOIL's operations were confined to Madhya Pradesh and Maharashtra. Since then the company has extended its operations to Orissa, Andhra Pradesh and Karnataka.

Bharat Refractories Ltd.

Bharat Refractories Ltd. became a government company on 1 May 1978. It presently consists of four units : (i) the Bhandaridah Refractories plant at Bhandaridah near Bokaro; (ii) the Ranchi Road Refractories plant at Morar near Ranchi; (iii) the Bhilai Refractories plant at Bhilai; and (iv) Silimanite Mines at Sonapahar in Meghalaya. It also has a subsidiary company, namely, India Firebricks and Insulation Co. Ltd., with works at Ramgarh near Ranchi.

In Bhilai Refractories plant, commercial production of basic bricks commenced from November 1981. The silica shop was commissioned in October 1982 and the fireclay shop in December 1982.

Bharat Aluminium Company

Bharat Aluminium Company Ltd. was incorporated on 27 November 1965 to implement two aluminium projects—a 1,00,000 tonne per annum integrated Aluminium Project at Korba in Madhya Pradesh and a 50,000 tonne integrated Aluminium Project at Ratnagiri in Maharashtra. The Korba Alumina Plant was commissioned in April 1973. The Smelter Complex, consisting of 4 streams of 25,000 tonnes each per annum capacity is ready since long. For want of power, only the first and second streams could so far be commissioned since May 1975 and September 1977, respectively.

Hindustan Copper

Hindustan Copper Ltd., Calcutta, is responsible for developing the copper deposits in the country. The operating units of the Company are the Khetri Copper Complex, Chandmari and Dariba Copper Project in Rajasthan, Indian Copper Complex and Rakha Copper Projects in Bihar. Malanjkhand Copper Project in Madhya Pradesh was commissioned at its I stage in November 1982.

Bharat Gold Mines

The Bharat Gold Mines Ltd., Oorgaum, Karnataka, took over the management of Kolar Gold Mining Undertaking, a departmental undertaking, from 1 April 1972. Production of gold in 1981-82 was 14.21 lakh gm. The undertaking incurred a loss of Rs 57.06 lakh compared to a profit of Rs 603.31 lakh in 1980-81.

Hindustan Zinc

There are at present three zinc smelters in the country, two operated by the Hindustan Zinc Ltd. (HZL), in the public sector and another by Cominco Binani Zinc Ltd., in the private sector. The public sector smelters are at Debari in Rajasthan and Visakhapatnam; and

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the private sector smelter is at Alwaye in Kerala. The total intalled capacity of these zinc smelters is 95,000 tonnes per annum. Zinc concentrate produced at Company's Zawar mines is used for zinc production at Debari Smelter while Vizag Smelter is based on imported concentrates. It will, however, switch over to indigenous concentrate gradually as HZL's Rajpura-Dariba mine has gone in production now.

There are two lead smelters in the country, operated in the public sector by HZL, one at Tundoo in Bihar and the other at Visakhapatnam. Tundoo Lead Smelter has a capacity of 8,000 tonnes per annum and of Visakhapatnam Lead Smelter 10,000 tonnes per annum. The lead concentrates produced at Company's mine in Rajasthan, Orissa and Agnigundala in Andhra Pradesh are used in lead smelters.

To develop lead-zinc with other bye-products like silver, cadmium, sulphuric acid, single Superphosphate, etc., the HZL was set up in 1966 at Udaipur, as a Central Government undertaking. As leading producer of zinc, it is the only zinc producer in public sector in the country.

There are eight constituent units of HZL namely, (i) Zawar mines, Rajasthan; (ii) Rajpura-Dariba mine, Rajasthan; (iii) Sargipali mine project, Orissa; (iv) Agnigundala lead mine, Andhra Pradesh; (v) Rampura-Agucha lead-zinc prospect, Rajasthan; (vi) Zinc smelter, Debari; (vii) Lead smelter, Tundoo, Bihar and (viii) Zinc lead smelter, Visakhapatnam.

PLANTATION INDUSTRIES

Plantations play an important role in the foreign trade of India. Tea, coffee, cardamom, tobacco, cashew and spices are some of the main items contributing to India's exports.

Tea

Tea industry besides being a major foreign exchange earner for India provides employment to over 10 lakh persons directly and to another 10 lakh persons indirectly by way of ancillary occupations. During 1982, tea production was estimated at 56.40 crore kg as compared to 56.07 crore kg in 1981.

The Tea Board, which is the principal agency for the development of the tea industry, is implementing a number of schemes to increase production. These include long-term loans to tea estates, provision of facilities for acquiring machinery on hire-purchase basis and grant of subsidy to the industry for replanting over-aged tea bushes.

A Tea Trading Corporation of Calcutta has been set up to markets Indian tea in consumer packs in certain selected countries.

Coffee

Production of coffee during 1981-82 was 1.50 lakh tonnes. The exports of coffee were of the order of Rs 132.5 crore in 1981-82.

The Coffee Board, which is responsible for the development of coffee industry, has undertaken a coffee development plan to improve the yield and quality of coffee. For this purpose, it advances loans to coffee growers.

Cardamom

At present, the cultivation of cardamom is largely confined to Kerala, Tamil Nadu and Karnataka. Exports during 1981-82 were of the order of 2,386 tonnes worth Rs 31.1 crore.

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Rubber

The figures of production, import and consumption of rubber during April-November 1982 was 1,13,090 tonnes (natural), 32,837 tonnes (natural) and 1,28,270 tonnes (natural), respectively.

The Rubber Board assists the industry in solving its problems.

VILLAGE AND SMALL INDUSTRIES

Small scale industries have grown phenomenally during the last decade and the sector today occupies a position of unique importance in the economy of the country. Village and small scale industries taken together account for about 49 per cent of the total industrial production and the contribution of industries falling under the purview of Small Industries Development Organisation is about 33 per cent.

The investment limit in the definition of small scale industries was revised upward in 1980 from Rs 10 lakh investment in plant and machinery to Rs 20 lakh and in case of ancillary units from Rs 15 lakh to Rs 25 lakh. In 1982, it was decided that all service-oriented enterprises would also be eligible to be registered as small scale establishments provided these are set up in rural areas and towns with a population of 5 lakh or less and subject to a ceiling on investment in plant and machinery of Rs 2 lakh. On being so registered they would be entitled to the same concessions and incentives as available to small scale and ancillary industries.

In 1981-82, the estimated value of production of small scale units was Rs 32,600 crore (Rs 25,920 crore at 1979-80 prices). The small scale sector provided employment to about 75 lakh persons. The exports from this sector also increased during the year to the tune of Rs 2,026 crore.

Import Policy

The Government has liberalised the import policy and streamlined the distribution system of critical raw materials. These liberalisations include expansion of the list of items under open general licence (OGL). Eighty new items of raw materials, components and consumables have been allowed for import under OGL to actual users (industrial). The system of prior registration of import contracts for OGL items in force for certain items such as man-made fibre and yarn has now been extended to a number of other items. Certain items of raw materials and components have been taken out of OGL in view of indigenous production. Thirteen items of capital goods have been taken out of OGL on account of their indigenous development. As a measure of procedural simplification, the industrial units having substantial export performance which have been given the facility of repeat operation of their automatic licence will also have the facility to utilise on a repeat basis even their supplementary licences issued for 1982-83 irrespective of their value. Here, the repeat operation will be for the same value and the same item with additional period of 12 months for shipment.

In 1982-83, a new dimension was given to the duty exemption scheme by extending it to the manufacturers of intermediate products where such products are ultimately used for export production. This scheme continues for 1983-84 with further addition of products to the scheme. The scheme now covers 20 products in all. Certain items of specialised value which were not bulkable have been decanalised and the list of canalised imports has been renewed and a

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number of new items have been added to the list. Procedural formalities for obtaining import licence have been dispensed with or curtailed particularly for the benefit of small scale units.

National Small Industries Corporation

The National Small Industries Corporation (NSIC) which was set up in 1955 operates the scheme of procuring machinery for small scale manufacturers on a hire-purchase basis on concessional terms. It also assists the small scale sector in processing orders from Government departments and offices.

The number of units assisted by NSIC under the hire-purchase scheme was 950 during 1981-82 and machinery valued at Rs 11.52 crore was supplied.

The Corporation through its Prototype Development and Training Centres is imparting training to upgrade skills of various categories of workmen, developing different prototypes and transferring them to small scale units for commercial production.

District Industries Centres

The set-up of the district industries centres (DIC) is being restructured with a view to strengthening their technological competence in the fields offering promising prospects in the respective districts. The total number of approved DIC now stands at 395 which cover 408 districts out of total 413 districts of the country. Four metropolitan cities, namely, Bombay, Delhi, Calcutta and Madras are outside the purview of the DIC Programme.

During 1981-82, in 333 DICs, which had sent progress reports, 3.08 lakh new units comprising of 2.38 lakh artisan-oriented units and 70,000 SSI units were established which had created employment opportunities for 9.57 lakh persons.

Credit Facilities

The Reserve Bank of India has advised the banks to ensure that at least 40 per cent of their total advances are extended to the priority sector by the end of 1985 and the small scale sector is one of the sectors within the priority category. The share of the small scale sector in the total outstandings to the priority sector at the end of December 1981 was about 37 per cent. The number of small scale units/borrowers assisted by public sector banks at the end of December 1981 was nearly 9.24 lakhs and the amount outstanding to the small scale sector Rs 3,763 crore. The amount of financial assistance sanctioned by the state financial corporations to the small scale industries during 1981-82 was Rs 410 crore and the amount disbursed Rs 237 crore (SFC figures are provisional).

Small Industries Development Organisation

Small Industries Development Organisation provides a comprehensive range of consultancy services and technical, managerial, economic and marketing assistance to the small scale units through its network of 26 Small Industries Service Institutes (SISIs), 20 Branch SISIs, 40 extension centres, 4 regional testing centres, 1 product-cum-process development centre, 2 footwear training centres and 4 production centres. Assistance was provided to about 2,41,184 entrepreneurs during 1982-83.

Four Regional Testing Centres at Bombay, Calcutta, Madras and New Delhi provide testing facilities in mechanical, metallurgical, chemicals and electrical trades. In addition, action to establish 20 Field Testing Stations covering a wide spectrum of small scale industrial

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products has also been initiated. The Central Tool Room and Training Centre, Calcutta, provides tools and conducts regular and short-term training courses in tool making. The Central Tool Room and Training Centre, Ludhiana, started functioning from November 1980.

Besides, Central Institute of Tools Design (CITD), Hyderabad, and Institute for Design of Electrical Measuring Instruments (IDEMI), Bombay, are providing technical guidance and training to entrepreneurs. SIETI, Hyderabad, has grown into an institution of national importance in offering training, research and consultancy services to small scale industries. The Central Institute of Hand Tool, a new project, has been started at Jalandhar.

HANDICRAFTS

Handicrafts include a large number of crafts which are backed by centuries of experience and skill. This sector plays an important role in the Indian economy by providing employment opportunities and helping the country to earn foreign exchange. During 1981-82, the provisional export earnings from handicrafts (including gem and jewellery) were Rs 1,179 crore. In 1982-83, the exports of handicrafts (including gem and jewellery) further rose to Rs 1,362 crore.

To advise the Government on matters relating to development of handlooms and handicrafts, All India Handlooms and Handicrafts Board was set up in July 1981. The office of the Development Commissioner (Handicrafts) is, however, responsible for implementation of various schemes for development of handicrafts in the Central sector. It has five regional offices at Bombay, Calcutta, Madras, Lucknow and New Delhi. Four Regional Design and Technical Development Centres at Calcutta, Bombay, Bangalore and New Delhi and a Crafts Museum at New Delhi have also been set up.

HANDLOOMS

The handloom industry ranks in importance next only to agriculture in employment potential. There are about 38 lakh handlooms, of which 16.23 lakhs (approx.) are in cooperative fold. About one crore persons depend on this industry for livelihood. A target of 410 crore metres of handloom cloth production has been fixed for the Sixth Plan. The handloom industry has achieved an important position in the exports, which increased from Rs 11.60 crore in 1967-68 to Rs 330.89 crore in 1982-83.

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19 COMMERCE

EXTERNAL TRADE

Before Independence, India had a pattern of trade which was traditionally that of a colonial and agricultural country. The bulk of her foreign trade was confined to Britain and other Commonwealth countries. While exports were based on a few primary commodities, imports were restricted and consisted mainly of manufactured articles. Though, on the surface, there was a favourable balance of trade, it concealed a low level of industrial production and economic development.

With the impressive industrial development since 1947, India's foreign trade has undergone a complete change and is no longer confined to a few countries trading in a few commodities. She, now, has trading links with practically all the countries of the world. The number of commodities being traded in India's foreign trade, either for purpose of exports or imports are now nearly 6,660. The exports cover a wide range of items of agricultural and industrial sectors of handicrafts, handloom, cottage and craft articles. Project exports which include consultancy, civil construction and turn-key contracts have also made a significant progress in recent years.

Similarly, there has been a great increase in imports on account of the development needs of the economy. The composition of imports has, naturally, undergone a great change. The bulk of the imports now consists of sophisticated machines, scarce raw materials, lubricants, oils and fertilizers which are essential for the country's industrial and agricultural development. In the last few years, the country has developed a large adverse balance of trade on account of heavy imports necessary for the development as well as for reasons of steep hike in world prices of major imports particularly petroleum and petroleum products, fertilizers, etc.

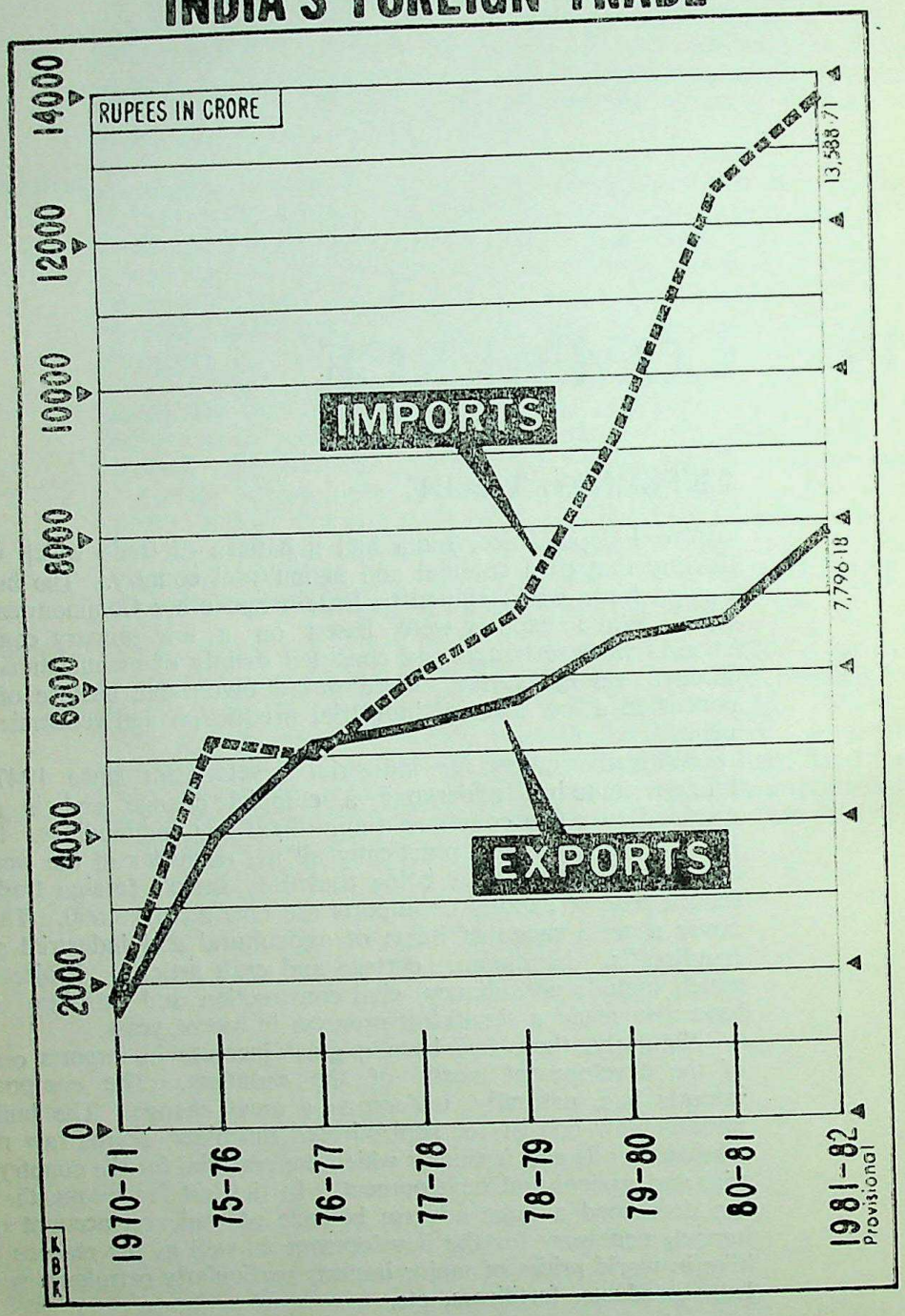
VALUE OF FOREIGN TRADE

The total turn-over of foreign trade (imports plus exports including re-exports) during 1981-82 was Rs 21,474.23 crore indicating a rise of about 11.5 per cent over the value of Rs 19,271 crore in 1980-81.

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INDIA'S FOREIGN TRADE



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The total value of foreign trade on provisional basis went up further to Rs 22,684.96 crore in 1982-83. The value of imports and exports, the total value of foreign trade and the balance of trade for selected years since 1950-51 are given in table 19.1.

TABLE 19.1
FOREIGN TRADE OF INDIA

(Rs in crore)

Year	Imports	Exports (including re-exports)	Total Value of Foreign Trade	Balance of Trade
1950-51 . . .	650·21	600·64	1,250·85	—49·57
1960-61 . . .	1,139·69	660·22	1,799·91	—179·47
1970-71 . . .	1,634·20	1,535·16	3,169·36	—99·04
1972-73 . . .	1,867·44	1,970·83	3,838·27	+103·39
1973-74 . . .	2,955·37	2,523·40	5,478·77	—431·97
1974-75 . . .	4,518·78	3,328·83	7,847·61	—1,189·95
1975-76 . . .	5,265·20	4,042·25	9,307·45	—1,222·75
1976-77 . . .	5,073·79	5,142·25	10,216·04	+68·46
1977-78 . . .	6,025·29	5,404·26	11,429·55	—621·03
1978-79 . . .	6,814·30	5,726·26	12,540·56	—1,088·04
1979-80 . . .	9,142·53	6,458·76	15,701·34	—2,683·82
1980-81 . . .	12,560·29	6,710·71	19,271·00	—5,849·58
1981-82 . . .	13,671·26	7,802·97	21,474·23	—5,868·29
1982-83[1] . . .	14,047·28	8,637·68	22,684·96	—5,409·60

[1]Provisional

The country is generally having adverse balance of trade owing to an increase in imports needed to meet the requirements of development accompanied by relatively slow growth of exports in the background of large domestic market with rising demand. At times, there have been periods when India's foreign trade witnessed modest surpluses. In 1972-73, as a result of an appreciable increase in exports, the balance of trade turned into a favourable one for the first time during the last 26 years. It was once again in 1976-77 when India's trade was in surplus to the extent of Rs 68.46 crore due to faster growth in the exports and a slight fall in imports. The subsequent years were marked by rising trade deficit. India's external trade and balance of payment situation has been under severe strains since 1979-80. During this period, there has been a sharp increase in the deficit of India's foreign trade, chiefly on account of disproportionate rise in import bill in the wake of steep hike in world prices of major imports, particularly those of petroleum and petroleum products. The deficit of foreign trade which stood at Rs 1,088 crore in 1978-79 increased to Rs 2,684 crore in 1979-80 and to Rs 5,850 crore in 1980-81. The growth of exports during 1980-81 was hampered by the poor performance of Indian economy in 1979-80 and the first half of 1980-81 under the effects of droughts, characterised by low production levels, lack of infrastructural facilities for export production and domestic inflation. The resultant domestic shortages also necessitated higher imports of essential commodities which inflated the import bill. The international environment was also not conducive to growth of exports following world recession, prevalence of fluctuating exchange rate and new type of tariff, non-tariff and other protectionist measures followed by developed countries. However, as a result of various measures taken by the present government in the direction of export production and export marketing, 1981-82 and 1982-83 have shown distinct improvement in the performance of India's foreign trade.

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India's overall exports during 1981-82 amounted to Rs 7,802.97 crore. This performance when compared with the previous year figure of 1980-81, shows a rise of about 16.3 per cent. Considering the fact that the growth of exports, in 1980-81 was 4 per cent the achievement of a growth of 16.3 per cent in 1981-82 is very encouraging.

Imports during 1981-82 amounted to Rs 13,671.26 crore indicating an increase of 8.8 per cent only over 1980-81 as against a successively high rise of 34.2 per cent and 34.4 per cent in 1979-80 and 1980-81 respectively. Consequently, the deficit of India's foreign trade for 1981-82 comes to Rs 5,868.29 crore. The uptrend in exports was maintained during 1982-83, overall exports at a provisional total of Rs 8,637.68 crore registered a rise of 17.4 per cent when compared with the corresponding provisional figure of Rs 7,358.07 crore in 1981-82. The crude oil from Bombay High has emerged as one of the important items in the export basket since January 1982. Thus, it would be observed that 1981-82 and 1982-83 have been characterised not only by a considerable improvement in exports, but the disproportionate growth in imports as well as deficit of foreign trade, as experienced in 1979-80 and 1980-81 were also remarkably curtailed. With steady improvement in economy and infrastructural facilities, exports are expected to show sustained growth in future provided the trading environment in international market improves.

PATTERN OF TRADE

Exports, which had been more or less stagnant during the decade 1951—60, averaging a little over Rs 600 crore per annum, started increasing between 1961 and 1966. On 31 March 1966, exports stood at about Rs 806 crore. Exports, however, showed a continued increase during the post-devaluation period, though, the rate of increase has been varying from year to year depending on the domestic and international situation. In 1981-82 exports totalled Rs 7,802.97 crore, against a figure of Rs 1,093.78 crore in the year of devaluation of 1966-67. Exports during 1982-83 provisionally amounted to Rs 8,637.68 crore which are likely to reach around Rs 9,000 crore on receipt of complete trade returns.

EXPORTS

The exports have not only gone up, but also witnessed an increasing diversification over the years. The increase has been well-spread over a number of commodities such as capital goods and other engineering items, chemicals and chemical products, leather and leather manufactures, garments, silk, rayon and woollen textiles, gems and jewellery, handicrafts, processed food and marine products, etc. Emphasis is also laid on the exports of traditional items like plantation crops, agricultural items, ores and minerals, cotton and jute manufactures.

Among the dynamic sectors, exports of engineering goods, during the decade went up from Rs 130 crore in 1970-71 to Rs 900 crore in 1980-81, leather and leather products (including footwear) from Rs 84 crore to Rs 377 crore, pearls, precious and semi-precious stones from Rs 42 crore to Rs 602 crore, readymade garments from Rs 9 crore to Rs 515 crore, chemicals and allied products from Rs 29 crore to Rs 226 crore and fish from Rs 30 crore to Rs 217 crore. During the same decade, exports of jute manufactures went up from Rs 190 crore to Rs 330 crore, cotton fabrics from Rs 75 crore to Rs 288 crore, tea from Rs 148 crore to Rs 425 crore, coffee from Rs 25 crore to Rs 214 crore, tobacco from Rs 33 crore to Rs 141 crore, cashew kernels from Rs 52 crore to Rs 140 crore, iron ore

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from Rs 117 crore to Rs 303 crore and oil cakes from Rs 55 crore to Rs 125 crore.

Although, the major traditional exports like tea, jute manufactures and cotton fabrics have tended to increase, these have been subject to considerable fluctuations over the period depending on the demand and supply position in the international market. Exports of tea jumped up from Rs 293 crore in 1976-77 to Rs 570 crore in 1977-78, but declined to Rs 340 crore in 1978-79. Exports of tea during 1980-81 were valued at Rs 425 crore. Exports of tea in 1980-81 recovered to Rs 425 crore but again declined to Rs 373 crore in 1981-82 mainly because of decline in international prices. As a result of hike in oil prices, exports of jute manufacturers increased from Rs 227 crore in 1973-74 to Rs 297 crore in 1974-75 but in subsequent years exports continued to be lower and fell to Rs 167 crore in 1978-79. Then again due to further hike in oil prices, exports of jute manufactures *vis-a-vis* synthetic goods sharply increased to Rs 336 crore in 1979-80. But, thereafter, the exports showed a declining trend and during 1981-82 it amounted to Rs 250 crore. The set back in export of jute manufactures can be attributed to factors like recessionary condition in the industrially developed countries, price competition in world market and stiff challenge from synthetic substitute. Exports of cotton fabrics which amounted to Rs 232 crore in 1973-74, after having declined in the next two years increased to Rs 267 crore in 1976-77. Exports again declined in next years but improved to Rs 287 crore in 1979-80 and again declined to Rs 277 crore in 1980-81 and declined to Rs 276 crore and Rs 272 crore respectively during 1980-81 and 1981-82. Exports of rice have also emerged as an important item of exports which increased from Rs 39 crore in 1978-79 to Rs 123 crore in 1979-80 and further upto Rs 224 crore in 1980-81 and Rs 343 crore in 1981-82.

Tea and Jute Manufactures

The trend of exports in respect of these two major traditional items has been discussed in the previous paragraph. A Tea Trading Corporation was set up in 1971 to promote exports of packaged tea. During the same year, the Jute Corporation was set up to stabilise prices of jute at remunerative levels and to carry out price support operation of raw jute. It is also canalising agency for export/import of raw jute.

Cotton Textiles

Exports of cotton textiles are subject to quantitative restrictions imposed by a number of industrial countries. This has restricted the scope for increase in exports. There has been extension of the multi-fibre agreement (MFA) on 22 December 1981 for a period of more than 4 years. It is expected to prove beneficial for developing countries including India, as some of the restrictive clauses have been removed and higher growth rates provided. A significant event is that India has concluded bilateral negotiations as a follow-up action to the MFA signed in 1981 with European Common Market (ECM), USA, Canada, Australia and Finland. These agreements provide for improved access for Indian textiles and textile products to these countries and augurs well for expansion of exports to these countries.

Exports of cotton fabrics which amounted to Rs 224 crore in 1978-79 increased to Rs 287 crore in 1979-80 but thereafter declined to Rs 277 crore in 1980-81 and Rs 270 crore in 1981-82.

Indian ready-made garments are becoming increasingly popular in

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foreign markets. The exports of garments during 1981-82 increased to Rs 548 crore as against exports worth Rs 460 crore in 1979-80 and Rs 481 crore in 1980-81.

Iron Ore

Export of iron ore remained more or less stagnant during 1976-77 to 1978-79 due to recession in world steel industry. The exports have, however, picked up from Rs 233 crore in 1978-79 to Rs 285 crore in 1979-80 and to Rs 303 crore in 1980-81 and to Rs 343 crore in 1981-82. The export of ores, however, continued to be under the grip of recession due to slackening in world steel production.

Unmanufactured Tobacco

Exports of unmanufactured tobacco which had declined from Rs 111 crore in 1978-79 to Rs 102 crore in 1979-80 increased to Rs 124 crore in 1980-81. Exports of tabacco, however, picked up significantly during 1981-82 both in terms of quantity and value. The value of exports of unmanufactured tobacco during 1981-82 amounted to Rs 179 crore. Exports of manufactured tobacco are also showing appreciable increasing trend; it increased by almost five times from a value of Rs 6 crore in 1978-79 to about Rs 31 crore in 1981-82.

Cashew Kernels

There was marked decline in the exports of cashew kernels from Rs 150 crore in 1977-78 to Rs 80 crore in 1978-79 but thereafter the exports witnessed a steady rise from Rs 118 crore in 1979-80 to Rs 140 crore in 1980-81 and to Rs 169 crore in 1981-82.

Engineering Goods

The range of engineering goods exported not only showed a fair measure of diversification and specialisation, but some of the products found their way to developed countries. Capital goods now occupy an important share in the export composition of engineering goods from India. Exports of engineering goods registered a significant growth from Rs 739 crore in 1979-80 to Rs 900 crore in 1980-81 and to Rs 1,060 crore in 1981-82.

Fish

Exports of fish and fish preparations, having declined from Rs 253 crore in 1979-80 to Rs 213 crore in 1980-81, picked up to Rs 274 crore in 1981-82. The increase in exports was mainly due to larger exports of high value items like frozen shrimp, as well as higher export price.

Leather and Leather Manufactures

During 1980-81, the exports of leather and leather manufactures (including footwear) declined to Rs 378 crore from a record level of Rs 520 crore in the preceding year, on account of recession in world leather industry. Exports, however, recovered to Rs 415 crore in 1981-82. As per the Government's policy, increasing emphasis is now being laid on the exports of leather in more of finished and manufactured form to earn added value.

Coffee

Exports of coffee, having declined from Rs 194 crore in 1977-78 to Rs 144 crore in 1978-79 improved to Rs 163 crore in 1979-80 and to Rs 214 crore in 1980-81. The significant increase in 1980-81 over 1979-80, was on account of substantial rise in the quantity of coffee exports. In 1981-82, however, exports of coffee suffered severe set back when declined to Rs 132 crore contributed both by decline in quantity as well as fall in unit value realisation during the year.

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Chemicals and Allied Products

Exports of chemicals and allied products have registered a significant growth in the last few years. Within a period of four years, exports of chemicals and allied products increased by almost three-fold from Rs 117 crore in 1977-78 to Rs 347 crore in 1981-82.

Handicrafts

Exports of pearls, precious and semi-precious stones has touched a high level of Rs 714 crore in 1978-79, but affected by recession in world diamond industry, exports declined to Rs 519 crore during 1979-80. Exports of pearls, precious and semi-precious stones, however, increased to Rs 602 crore in 1980-81, and further picked up to Rs 680 crore in 1981-82. Exports of diamonds are predominantly important in this group. In view of recessionary pressure in international market the small size diamonds of which India is a supplier are comparatively becoming more popular than the large size diamonds. Other handicrafts items like woollen carpets, jewellery, artware of metals, etc., have also shown appreciable increase during the year.

TABLE 19·2
EXPORT OF PRINCIPAL COMMODITIES

(Value in Rs crore)

S. No.	Commodity	1978-79	1979-80	1980-81	1981-82[1]
1.	Tea	340·5	367·8	425·5	373·3
2.	Coffee	144·0	163·3	214·2	132·5
3.	Tobacco	116·3	113·6	140·7	227·8
4.	Cashew kernels	80·2	118·1	140·1	168·8
5.	Sugar and sugar preparations	136·1	128·9	40·6	40·3
6.	Spices	147·9	149·4	111·4	112·5
7.	Oil cakes	109·9	127·5	125·1	139·4
8.	Fish and fish preparations	226·3	253·4	212·9	274·4
9.	Raw cotton	16·0	75·1	164·9	35·0
10.	Rice	38·7	128·3	223·9	342·7
11.	Iron ore	232·9	285·2	303·3	343·4
12.	Manganese ore	15·4	13·2	12·7	9·0
13.	Mica	18·9	20·6	17·7	27·9
14.	Leather and leather manufactures (excluding footwear)	327·7	485·6	337·1	374·1
15.	Footwear	26·3	33·9	40·1	40·4
16.	Cotton fabrics	224·3	287·4	276·5	272·5
17.	Art silk fabrics	38·9	32·4	31·6	33·6
18.	Readymade garments	421·2	459·7	515·0	547·9
19.	Coir yarn and manufactures	26·9	36·6	26·2	25·8
20.	Jute manufactures	166·9	336·1	330·0	250·1
21.	Mineral fuel, lubricants, etc.	19·8	21·2	27·9	24·3
22.	Engineering goods	700·7	739.1	900·0	1,060·0
23.	Chemicals and allied products	148·1	197·8	225·6	347·3
24.	Pearls, precious and semi-precious stones	713·7	519·0	601·9	679·6
25.	Carpets, hand-made	100·6	139·8	163·9	173·1
	Total Exports (including other items)	5,726·3	6,458·8	6,710·7	7,796·2[1]

1. Provisional

IMPORTS

The principal imports with value from 1978-79 to 1981-82 (provisional) have been given in table 19.3. The faster growth of Indian

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economy requires substantial imports of petroleum and petroleum products, fertilizers, iron and steel, non-ferrous metals, other industrial raw materials, specific type of machinery and capital goods, spares and components, etc. Because of remarkable progress made in agricultural sector, imports of foodgrains, cotton, etc., have been either eliminated or substantially curtailed in recent years.

Due to world-wide inflation after the first oil crisis, there was substantial increase in the value of imports between 1973-74 and 1975-76, but the trend was reversed in 1976-77 when imports declined in absolute terms, whereas exports exceeded imports by some margin. But, thereafter, there was a fast increase in imports due to steep increase in the international prices of our major imports, particularly those of petroleum and petroleum products. The value of imports during 1980-81 reached Rs 12,560.29 crore as against Rs 9,142.58 crore in 1979-80 and Rs 6,814.30 crore in 1978-79. Imports increased by 34.2 per cent in 1979-80 and by 37.4 per cent in 1980-81. The rate of increase in imports was, however, significantly reduced to 8.8 per cent in 1981-82. Imports of petroleum and petroleum products alone increased by as much as Rs 1,931 crore (or 58 per cent), from Rs 3,333 crore during 1979-80 to Rs 5,264 crore in 1980-81 with a corresponding increase in quantity by 13 per cent from 208 lakh tonnes to 235 lakh tonnes. Consequently, the relative share of POL alone in India's total imports went up from 36 per cent to 42 per cent between 1979-80 and Rs 6,814.30 crore in 1978-79. Imports increased by 34.2 lakh tonnes valued at Rs 5,189 crore which were lower both in quantity and value as compared to the previous year. As a result of oil exploration programmes, the indigenous production of petroleum crude has shown impressive increase from 105 lakh tonnes in 1980-81 to 162 lakh tonnes in 1981-82 and is estimated to reach 210 lakh tonnes in 1982-83.

The other major items of imports which registered increase during 1981-82 include capital goods, fertilizers, non-ferrous metals, edible oils, chemicals, rough precious and semi-precious stones, etc. Besides crude oil increase emphasis is also being made to step up the domestic production of other items like fertilizers, steel, cement, oil seeds, etc. as to reduce strains on import bill.

DIRECTION OF TRADE

The principal countries from which India imported and the value of imports from each of these countries from 1979-80 onwards are shown in table 19.4.

As a result of sizeable increase in the value of import of POL and other essential products like fertilizers, vegetable oils, chemicals, metals and metal manufactures, machinery and transport equipment, etc., the deficit of India's foreign trade widened substantially particularly in respect of her trade with Western Europe, USA and Asia. At the same time, India had a surplus with East Europe and Africa.

IMPORTS

Over the year USA has been the dominant supplier mainly because of import of foodgrains and other items under aid and grants. USA continued to be the largest supplier, and at present the main imports from her comprise capital goods, fertilizers and vegetable oils. Both in 1980-81 and 1981-82 USA remained the foremost supplier followed by Iran due mainly to POL imports. The other major sources of imports during 1981-82 include USSR, Japan, West Germany, UK, Saudi Arabia, Belgium and United Arab Emirates.

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TABLE 19·3
IMPORTS OF PRINCIPAL COMMODITIES

(Rs in crore)

Sl. No. Commodity	1978-79	1979-80	1980-81	1981-82[1]
I. *Consumer Goods*	86·9	105·8	100·4	264·4
Cereal and cereal preparations	86·9	105·8	100·4	264·4
II. *Raw Materials and Intermediate Manufactures*	4,873·7	6,976·1	9,756·5	Not available.
(a) Cashew nuts (unprocessed)	9·2	11·6	8·7	19·1
(b) Copra	16·9	8·2	5·1	0·6
(c) Crude rubber (including synthetic and reclaimed)	29·7	53·6	31·4	66·4
(d) Textile fibres				
(i) Raw wool	31·9	31·9	43·1	30·2
(ii) Raw cotton	26·4	0·1	Negligible	9·0
(iii) Raw jute	1·2	0·4	1·1	0·3
(e) Petroleum, oil and lubricants (POL)	1,686·9	3,332·9	5,263·5	5,139·3
(f) Animal and vegetable oil and fats	552·3	455·4	708·8	Nil
(i) Edible oils	537·1	446·3	682·9	378·8
(g) Fertilizers and chemical products	913·9	1,113·0	1,490·1	Not available
(i) Fertilizers and fertilizer materials	448·2	515·5	817·8	548·0
(ii) Chemical elements and compounds	230·9	323·6	358·2	387·8
(iii) Dyeing, tanning and colouring materials	23·4	25·5	20·8	18·0
(iv) Medicinal and pharmaceutical products	79·2	73·9	84·6	71·5
(v) Plastic materials regenerated cellulose and artificial resins	70·0	97·4	121·4	106·1
(h) Pulp and waste paper	41·7	30·4	18·3	22·9
(i) Paper, paper board and manufactures thereof	104·7	158·8	186·5	240·3
(j) Non-metallic mineral manufactures	560·3	442·3	555·2	460·2
(i) Pearls and precious and semi-precious stones, worked or unworked	466·8	347·4	416·8	345·9
(k) Iron and steel	462·5	868·6	852·4	1,136·4
(l) Non-ferrous metals	245·5	353·4	477·4	301·6
III. *Capital Goods*	1,306·1	1,458·5	1,910·3	1,745·8
(a) Manufactures of metals	46·1	75·7	89·5	91·4
(b) Non-electrical machinery apparatus and appliances	769·6	806·9	1,115·3	1,182·2
(c) Electrical machinery, apparatus and appliances	193·6	237·3	233·5	214·0
(d) Transport equipment	296·8	338·6	472·0	258·1
Total Imports (including other items)	6,814·3	9,142·6	12,523·9	13,588·7[1]

[1]Provisional

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TABLE 19·4
IMPORTS FROM PRINCIPAL COUNTRIES

(Value in Rs crore)

Sl. No. Country	1979-80	1980-81	1981-82 (Prov.)
1. Belgium	264·92	295·86	513·27
2. France	200·30	280·30	246·88
3. Federal Republic of Germany	656·83	693·77	916·94
4. Italy	179·54	242·48	224·93
5. Netherlands	149·55	214·50	246·41
6. United Kingdom	749·58	730·99	848·87
7. Sweden	76·69	84·96	88·56
8. Switzerland	102·84	120·63	96·95
9. Spain	31·61	83·00	83·65
10. Australia	159·13	170·08	224·16
11. Iran	627·49	1,338·90	1,328·05
12. Japan	620·16	748·78	939·35
13. Korea Republic	84·35	135·38	167·36
14. Malaysia	209·24	266·07	241·08
15. Nepal	15·01	23·61	76·74
16. Pakistan	25·15	75·39	56·01
17. Singapore	160·14	427·88	395·06
18. Bahrain Island	47·68	41·75	92·51
19. Iraq	921·83	752·52	423·91
20. Kuwait	163·17	337·62	267·84
21. Qatar	47·90	43·23	46·90
22. Saudia Arabia	366·12	540·05	829·81
23. United Arab Emirates	206·85	349·97	466·70
24. Canada	222·36	332·34	293·82
25. USA	1,008·79	1,518·61	1,421·34
26. Brazil	65·60	235·67	250·84
27. Venezuela	18·35	48·26	162·30
28. Bulgaria	29·45	36·32	94·06
29. Czechoslovakia	49·67	39·01	50·92
30. Romania	45·30	97·20	111·05
31. USSR	822·32	1,013·71	1,156·36
32. United Republic of Tanzania	32·13	27·34	53·84
33. Zambia	59·24	67·80	36·07
Total imports including other countries	9,142·58	12,560·29	13,588·71

EXPORTS

A remarkable feature of direction of exports has been the significant increase in the exports of East Europe in recent years. During 1981-82 East Europe constituted the largest export market for Indian goods, followed by Economic and Social Commission for Asia and the Pacific (ESCAP), ECM, North America, rest of Asia, and Oceania (largely West Asia), Africa, European Free Trade Association (EFTA), rest of Europe, Latin America and rest of South America.

Exports to East Europe during 1981-82 at Rs 1,817.07 crore were up by 19.5 per cent over the level of exports of Rs 1,520.69 crore in the previous year. The relative share of East Europe in India's total exports improved from 22.7 per cent in 1980-81 to 23.3 per cent in 1981-82. Exports to USSR increased by 22.1 per cent from Rs 1,226.29 crore in 1980-81 to Rs 1,504.89 crore in 1981-82.

In West Europe India's exports to ECM had increased by 7.1 per cent to Rs 1,515.28 crore in 1981-82, as compared to 1980-81.

Exports to North America (USA and Canada) showed a significant increase of 17.5 per cent during 1981-82 but the trend witnessed a weakening tendency during 1982-83.

Exports to ESCAP during 1981-82 at Rs 1,728.11 crore were higher by 9.4 per cent over the exports in the previous year. Exports to Japan increased by 15.5 per cent from Rs 597.81 crore in 1980-81

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to Rs 690.56 crore in 1981-82. Whereas those to Iran declined by 10 per cent from Rs 123.23 crore to Rs 110.87 crore in the same period.

During 1981-82 exports to rest of Asia and Oceania which constituted largely West Asia at a total value of Rs 855.81 crore registered a growth rate of about 25 per cent over the exports of Rs 684.64 crore in the previous year. The United Arab Emirates, Saudi Arabia, Iraq and Kuwait are the major markets both from the point of view of Indian exports as well as source of imports.

Exports to Africa during 1981-82 at a value of Rs 473.93 crore, showed an increase of 8.9 per cent.

The principal countries to which India exported are shown in table 19.5.

TABLE 19·5
EXPORTS TO PRINCIPAL COUNTRIES

(Value in Rs crore)

Sl. No.	Country	1979-80	1980-81	1981-82 (Prov.)
1.	Belgium	163·93	144·48	163·95
2.	France	195·62	146·94	149·47
3.	Federal Republic of Germany	378·95	384·75	381·69
4.	Italy	213·04	151·58	160·41
5.	Netherlands	220·30	152·04	151·28
6.	United Kingdom	505·95	394·88	463·58
7.	Switzerland	101·73	110·53	116·55
8.	Australia	101·28	91·62	106·32
9.	Bangladesh	98·04	74·95	59·65
10.	Hong Kong	102·84	141·43	162·36
11.	Indonesia	58·23	51·60	60·07
12.	Iran	96·11	123·23	110·87
13.	Japan	643·46	597·81	690·56
14.	Malaysia	52·89	51·26	58·70
15.	Nepal	63·42	77·98	85·96
16.	Singapore	78·40	108·68	112·76
17.	Sri Lanka	128·47	80·65	83·96
18.	Iraq	61·48	51·98	80·87
19.	Kuwait	123·80	97·07	128·85
20.	Saudi Arabia	155·64	165·33	190·37
21.	United Arab Emirates	130·82	152·46	199·46
22.	Egypt Arab Republic	72·14	85·94	83·29
23.	Nigeria	29·70	53·38	65·29
24.	Canada	62·54	62·34	64·87
25.	USA	806·74	743·34	881·59
26.	Czechoslovakia	42·59	55·30	85·67
27.	Poland	44·29	68·97	44·83
28.	Romania	45·47	58·39	79·93
29.	USSR	638·17	1,226·29	1,504·89
	Total exports including other countries	6,458·76	6,710·71	7,796·18

TRADE POLICY

In recent years efforts have been made to re-orient our foreign trade strategy with a view to reduce social cost and shift the export basket towards the sectors in which India has a long term comparative advantage and whose export growth can be sustained.

The import and export policy for 1983-84 has been so formulated that it is both export oriented and production oriented. Export production will continue to receive priority. Registered exporters will be eligible for import replenishment licences as before, for import of banned and canalised items, including items in the limited permissible list in the export policy. The policy contains additional facilities for

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those exporters who are able to show a significant rise in exports above a prescribed limit. Cent per cent export-oriented units will be able to import their requirements under open general licence (OGL). Trading houses which have increased their exports by 50 per cent more than the normal growth rate fixed for them will be given more access to imports for canalised items against their additional licences for export production. A number of provisions in the policy will also help the growth of the small scale sector. For units belonging to this sector, the minimum qualifying export performance to get certain advantages in the import of raw materials and components has been reduced to 25 per cent (subject to minimum of Rs 5 lakh) as against 50 per cent for other manufacturers. Further, the facility will be available even to those small scale units which export less than 25 per cent of their production of selected products but their exports were atleast rupees one crore in value, in any of the two previous years.

EXPORT PROMOTION

In order to promote exports the Government has initiated several institutional, infra-structural and fiscal measures. The scheme of cash compensatory support (CCS) continues to be an important instrument of export promotion. An itemwise review of the CCS rates effective from 1 October 1982 have been announced. These are valid in most cases upto 31 March 1985. The duty draw-back scheme whereby exporters are allowed reimbursement of customs and central excise duties paid on raw-materials, components and packaging materials used in the manufacture and packaging of export products has been further modified so as to facilitate quicker payment of draw-back claims. In order to step up export production large houses and FERA companies have been allowed to set up capacities outside the list of industries included in Appendix I to the Press Note on industrial policy of 2 February 1973.

The Government have introduced the cent per cent export oriented scheme in 1981 and up to the end of March 1983,291 applications have been approved. The total fixed investment in the approved units is estimated at Rs 1,276.71 crore and the corresponding exports in five years in respect of these units have been envisaged at Rs 5,175.33 crore. Twenty eight units are already in operation.

Steps have also been initiated to step up exports of agricultural commodities on a continuous and sustained basis. Each state government would identify for itself the commodities in which it could promote exports. An export cell at the state level is to be established to deal with all matters relating to exports of agricultural commodities.

The export promotion measures are aimed at increasing production and diversifying export products so as to secure maximum benefit for domestic economy. A number of new steps have been added to the existing ones with the objective of giving top priority to exports.

AUTONOMOUS BODIES

There an a number of autonomous bodies under the Department of Commerce connected with development of exports and export promotion activities.

There are five statutory Commodity Boards responsible for production, development and export of tea, coffee, rubber, cardamom and tobacco.

The Export Inspection Council, Calcutta, a statutory body, is responsible for the enforcement of quality control and compulsory preshipment inspection of various exportable commodities.

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The Indian Institute of Foreign Trade, New Delhi, registered under the Societies Registration Act is engaged in (i) training of personnel in modern techniques of international trade; (ii) organisation of research in problems of foreign trade; and (iii) organisation of marketing research, area surveys, commodity surveys and market surveys.

The Indian Institute of Packaging, Bombay, set up in 1966 is registered under the Societies Registration Act. The main aims of the Institute are to undertake research on raw materials for the packaging industry, to organise training programmes on packaging technology, to stimulate consciousness of the need for good packaging, etc. It has two regional offices, one in Madras and the other in Calcutta.

There are at present 17 Export Promotion Councils—12 with the Department of Commerce and 5 with Department of Textiles. These are registered as non-profit organisations under the Companies Act. The Councils perform both advisory and executive functions. They secure the active cooperation of the growers, producers and exporters in the export efforts. These Councils are also registering authorities under the import policy for registered exporters.

The Federation of Indian Export Organisations, New Delhi is an apex organisation of various export promotion organisations and institutions. It also functions as a primary servicing agency to provide integrated assistance to government recognised export houses and as a central coordinating agency in respect of export promotional efforts in the fields of consultancy services in the country.

The Indian Council of Arbitration, New Delhi, set up under the Societies Registration Act, promotes arbitration as a means of settling commercial disputes and popularises arbitration among the traders, particularly those engaged in international trade.

The primary object of the Trade Development Authority set-up in July 1970 as a Registered Society with headquarters at New Delhi, is to induce and organise entrepreneurs, largely in the medium and small scale sectors, to develop their individual export capabilities. It provides assistance in a personalised form to individual exporters from the stage of intention to export, through collection and collation of information, product development, market research and analysis. It also advises them on export finance and assists them in securing and implementing export orders.

The Marine Products Exports Development Authority, Cochin, set up in August 1972, is responsible for development of the marine products industry with special reference to exports.

The Central Advisory Council on Trade, consisting of representatives from different organisations and individuals with business standing and expertise in the field of commerce advises the Government on matters relating to : (i) export and import policy programme; (ii) operation of import and export trade controls; (iii) organisation and development of commercial services; and (iv) organisation and expansion of export production.

ATTACHED AND SUBORDINATE OFFICES

The Import-Export Trade Control Organisation headed by the Chief Controller of Imports and Exports is responsible for the execution of the import and export policies of the Government. Import and Export licensing of iron and steel and ferro-alloys is also looked after by this organisation. The Chief Controller of Imports and Exports has subordinate offices at Agartala, Ahmadabad, Amritsar, Bangalore, Bhopal, Bombay, Calcutta, Chandigarh, Cuttack, Cochin, Guwahati,

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Hyderabad, Jaipur, Kanpur, Madras, New Delhi, New Kandla, Panjim, Patna, Pondicherry, Rajkot, Shillong, Srinagar and Vishakhapatnam.

The Export Promotion Offices at Bombay, Calcutta, Madras, Cochin, Nagpur and Pune are also functioning under the administrative control of the regional Joint Chief Controller of Imports and Exports/Deputy Chief Controller of Imports and Exports.

The Directorate General of Commercial Intelligence and Statistics, Calcutta is the primary agency for compilation and dissemination of statistical information and commercial intelligence. In this connection the Directorate brings out a number of publications and periodicals, in commerce, statistics and allied fields. The Directorate conducts studies on various topics relating to promotion of trade. It helps in the settlement of commercial disputes.

The Office of the Development Commissioner is responsible for administration of the Kandla Free Trade Zone (KFTZ), Gandhi Dham set-up in 1965 for cent per cent export oriented multi-product industrial units.

The Office of the Development Commissioner, Santa Cruz Electronics Export Processing Zone (SEEPZ), Bombay, set up in 1973, is responsible for administration of the zone establishment for cent per cent export oriented units manufacturing electronic equipment and components in the zone.

The enemy properties in India are being administered by the Custodian of Enemy Property, Bombay. The Custodian registers Indian claims against properties taken over by Pakistan and disburses exgratia grant to the Indian nationals/companies whose assets were seized by Pakistan during and after the Indo-Pak conflict of September 1965. The office of the Custodian came into existence in 1939 in the wake of the Second World War and is entrusted with two-fold duties viz. (i) custody, management and administration of the movable and immovable property in India and (ii) settlement of claims of Indian nationals whose properties were left in Pakistan.

COMMERCIAL RELATIONS AND TRADE AGREEMENTS

India's closer commercial and economic relationship with other countries has paved the way for continuing to have trade agreements with them. Our commercial offices attached in Indian missions abroad have also helped in various ways in our export efforts. There are at present 68 Commercial Offices/Representatives including Ambassador of India to GATT, who is also Deputy Permanent Representative to UNCTAD in the Permanent Mission of India, Geneva. They play a vital role in the promotion of India's trade and economic relations abroad. Apart from advising and assisting the Head of Mission on all commercial and economic matters, it is also the function of commercial representatives to assist the Government in the formulation of its trade and economic policies through regular feed-back on market trends, trade promotion prospects and general economic situation of the region in which they are accredited.

South Asian Region

This region includes India's neighbouring countries such as Afghanistan, Iran, Pakistan, Bangladesh, Nepal, Sri Lanka, Maldives and Bhutan. The balance of our trade with this region has continued to remain adverse largely because of our imports of petroleum products from Iran. During 1982-83, vigorous efforts were made to step up trade with these countries by exchange of delegations and official level meetings.

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The trade between India and Afghanistan is conducted in freely convertible currencies in terms of a trade agreement signed between the two countries on 24 June 1978. The trade between the two countries was reviewed in September 1982. It was agreed to designate focal points between the two countries for exchange of information on import export matters. It was also agreed to have closer links between the banking institutions of the two countries.

Trade with Iran is governed by the provisions of a Trade Agreement signed in 1974 which was initially valid upto December 1979. The Agreement provides for automatic extension from year to year unless a notice of termination or a request for a new agreement in writing is given by either party three months prior to the expiry of the Agreement. In August 1982 a Memorandum of Understanding was signed to increase and diversify trade relations between the two countries. Agreement was also reached on the desirability of achieving closer co-operation between the Central Banks of the two countries.

Whereas there were no restrictions on trade with Pakistan from our side, Pakistan had put unilateral restrictions on its private sector for trading with India. In view of this, there was no trade agreement between the two countries. Recently, Pakistan had allowed import of 40 items from India by their private sector but these purchases would also be required to be routed through a public sector agency. A number of Indian businessmen had visited Pakistan and found great interest in the Pakistan business community to enter into trading arrangements with India. A delegation of the Federation of the Indian Chambers of Commerce and Industry visited Pakistan in February 1983.

Trade with Bangladesh is conducted under the 1980 Trade Agreement which provides for trade on most favoured nation (MFN) terms in freely convertible currency and also for review of the progress of trade at intervals of six months.

India's trade with Nepal is regulated by Indo-Nepal Treaties of Trade, of Transit and an agreement for cooperation to control unauthorised trade.

Trade with Sri Lanka is governed by a Trade Agreement, signed in 1961. The agreement is of a general nature and provides that it shall remain in force until it is modified or terminated by either contracting party on giving three months notice to the other party. In view of this provision, the agreement continues to be in force to the present date.

A Trade Agreement between India and Maldives came into force on 31 March 1981. The Agreement provides for special treatment to the Maldives in the matter of annual supplies to them from India of certain essential items for which their requirements are very small to be determined bilaterally. The Agreement also provides for consultation between the two Governments as and when necessary in order to facilitate the implementation of the Agreement.

East Asian Region

This region includes three developed countries namely Australia, New Zealand and Japan. Our exports to and imports from Japan constituted 8.89 per cent and 5.98 per cent, respectively of India's total exports and imports. Australia is our second largest trading partner next only to Japan in this region.

A Trade Protocol has been entered with the Socialist Republic of Vietnam in December 1982 for exchange of goods worth US $60 lakh on each side. The Protocol is valid upto December 1983.

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The Association of South East Asian Nations (ASEAN) countries, namely, Indonesia, Malaysia, Philippines, Singapore and Thailand have been our traditional trading partners.

West Asia and North Africa

The West Asia and North African countries continue to be important region for our external trade in spite of problems created by shortfall in oil revenues and continued Iran-Iraq conflict. This region holds significant potential for the growth of our exports particularly engineering items. At the same time, this is also an area from where we procure important items for our economy like fertilizers, rock phosphate, crude oil and other essential raw materials. Significant contracts have been secured in Iraq and Libya. A number of consultancy contracts have also been entered into by a number of Indian consultancy firm in various countries in this region. Efforts are being made to cultivate the Algerian market both for promotion of our exports of goods as well as for securing consultancy contract in that country.

Africa

India has taken measures designed to increase trade, joint ventures and bilateral cooperation with African Continent. These include a concerted drive to sign trade agreements with as many African countries as possible, strengthening of the commercial wings with a view to cope up with the increasing commercial work, opening of trade office of Engineering Export Promotion Council (EEPC) in Abidjan, Trade Development Authority in Manorvia and Project Equipment Corporation in Harare.

In 1982-83 several initiatives have been taken to foster trade and bilateral cooperation with Africa (South of Sahara). The most important of these is the finalisation of the Africa Plan. The Plan envisages increase in exports from the level of about Rs 400 crore in 1979-80 to Rs 1,600 crore by 1985-86. Short-term and long-term targets have been framed for individual African countries. For the purpose of the Plan, an in-depth study has been made of the political and economic situation in various African countries. Trade Agreements have been signed with Nigeria and Ethiopia.

East European Countries

East Europe has acquired a prominent place in India's foreign trade. In 1981-82, India's trade with East European countries accounted for 16 per cent of our global trade—the share of exports being 23 per cent and imports 11 per cent. The Soviet Union is the largest purchaser of Indian goods.

Annual trade protocols for 1983 with USSR, Poland, Czechoslovakia, German Democratic Republic and Romania have been concluded. The projected trade turnover in 1983 with these countries envisages an increase of about 11.5 per cent over 1982. The trade protocol for 1983 with the USSR provides for a total turnover of Rs 3,626 crore representing a growth of 11 per cent over the planned projections for 1982.

Western Europe

West Europe is the most significant trading partner of India amounting for roughly one-fourth of India's total exports. It has two major economic groupings, namely ECM and EFTA. Except for a few countries like Denmark, Ireland, Greece, etc., India has been consistently having adverse balance of trade with most of the countries in the region. One of the important features of our exports to West Europe is that about 89 per cent of our total exports to West Euro-

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pean region is accounted for by just seven countries, namely, UK, Federal Republic of Germany, the Netherlands, Italy, France, Belgium and Switzerland. Thus, most of the West European markets are still unexplored.

The India Trade Centre at Brussels which was established three years ago with the partial assistance of ECM funds continues to play an important role in diversifying exports to hitherto unexplored markets besides sustaining the present markets.

India has trade agreements with most of the countries of Western Europe but the most important is the Indo-ECM Agreement for Commercial & Economic Co-operation. A new agreement with EEC which replaced the old one signed in 1973, came into effect on 1 January 1982 for a period of five years. This is a non-preferential agreement to promote closer trade and economic relations between the Community and India. It gives a new impetus to mutual economic and commercial relations between the partners and has a much wide scope than the previous agreement.

South America

Latin America accounts for 6 per cent of the world trade. India's trade with Latin America is not significant. India has all along had an adverse balance of trade with Latin America. Argentina, Brazil, Mexico and Venezuela account for more than 75 per cent of India's trade with the Latin American region.

The trade agreements entered into with Guatemala and Argentina in 1981 have now been ratified and these have come into force with effect from 8 July 1981 and 5 August 1982 respectively.

JOINT VENTURES ABROAD

India has also set up joint ventures abroad as a part of its overall strategy to increasingly participate in the developmental process of the third world. At the end of December 1982 there were 233 effective joint venture proposals out of which 140 were in production/operation and 93 were in various stages of implementation. Among the 93 joint ventures which have become operational in the manufacturing sector, the maximum is in the field of engineering. The other industries in which they have been set up include, chemicals, pharmaceuticals, palm oil refining, iron and steel products, paper, glass, etc. In the non-manufacturing sector largest number of joint ventures are for trading and marketing followed by hotels and restaurants.

PUBLIC SECTOR AGENCIES

For increasing state participation in the country's export and import trade, a number of public sector agencies have been set up. A brief description of some of the important agencies is given below.

State Trading Corporation

The State Trading Corporation of India (STC) was registered in 1956 under the Indian Companies Act. Its main objective is to enlarge the scope of India's exports and to arrange for India's essential imports. It also provides a number of services to the small scale sector to enable them to enter the export market. The STC has achieved a record turnover of Rs 1,867 crore in 1981-82. This consisted of exports worth Rs 555 crore, imports worth Rs 1,291 crore and domestic sales worth Rs 21 crore.

The Project and Equipment Corporation (PEC), a subsidiary of STC was created to give impetus to the export of engineering equipment and projects from India. It specialises in the export of railway rolling stock, heavy equipment and the execution of turn-key projects and identifies the technological competence of manufacturers of goods

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and of other agencies for services and ensuring the fulfilment of contractual obligations in respect of quality and delivery schedules. The export sales of the Corporation were of the order of Rs 55.25 crore in 1981-82.

The Cashew Corporation of India (CCI), another subsidiary of the STC is the canalising agency for import of raw cashewnuts with headquarters at Cochin.

Minerals and Metals Trading Corporation

The Minerals and Metals Trading Corporation (MMTC) occupies a prominent place in India's foreign trade in minerals and metals. Exports by MMTC during 1981-82 registered an increase of over 18 per cent as compared to 1980-81. Its imports turnover during the same period registered a decline mainly in respect of fertilizers, aluminium and stainless steel, where domestic production had picked up. Iron ore constitutes the core of exports by MMTC. During 1981-82, the export of iron ore registered an increase both in terms of value and volume. Despite recessionary trend in the world market, MMTC was able to secure an increase of more than 16 per cent in exports to Japan during April-December 1982 over the corresponding period of 1981.

The Corporation has been entrusted with the task of importing rough diamonds from producing countries and other markets for sale to Indian diamond exporters against their REP and advance imprest licences. The Corporation has started trading in diamonds from April 1981 onwards. During the nine months ended December 1982, the Corporation made available to the Indian diamond industry 4,06,191 carats of diamonds, valued at Rs 4.46 crore as against 1,53,790 carats of diamonds, valued at Rs 2.68 crore during the corresponding period of 1981-82.

The Mica Trading Corporation of India (MITCO) was set up on 1 June 1974 and is the only subsidiary of the MMTC to look after the exports of processed mica including mica scrap and waste. More than 80 per cent of the purchases of mica by MITCO are made from weaker section only. To increase the export of value added mica products instead of processed mica only, MITCO has taken up a number of projects such as Mica Capacitor Unit, Micronised Mica Power Plant, Mica Paper Units, Mica paper and Mica splittings insulation product.

Tea Trading Corporation of India

The Tea Trading Corporation of India was registered on 21 December 1971 to create a stable export market for Indian tea, particularly in their value-added forms, namely, packaged teas, tea bags, instant teas, etc. Other activities of this Corporation include marketing of teas for domestic consumption, management of tea gardens, warehousing of tea and estabishment of other facilities beneficial to the tea industry.

TTCI's exports during 1981-82 were to the tune of Rs 19.20 crore as against Rs 27.05 crore in 1980-81.

TTCI's internal sales operation during 1981-82 was confined to the supply of loose and packaged tea to government and other institutions including large hotels. The Corporation distributes blended tea through fair price shops in Calcutta, Howrah and in Orissa and Gujarat.

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Export Credit & Guarantee Corporation

The Export Credit & Guarantee Corporation Ltd., was originally set up in 1957 as Export Risk Insurance Corporation. Later, on 15 January 1964, it was transformed into Export and Guarantee Corporation Ltd. The primary object of the Corporation is to promote exports from India by providing export credit insurances and guarantee facilities to Indian exporters and commercial bankers. The Corporation issued 7,846 policies and guarantees in 1980 and 8,074 in 1981. The Corporation covered under policies, guarantees and special schemes risk worth Rs 6,303 crore in 1980 and Rs 7,415 crore in 1981.

Trade Fair Authority of India

In order to give a new orientation to country's state policy through fairs and exhibitions, the Trade Fair Authority of India (TFAI) has been set up as a Government company under the Companies Act, 1956. It took over the functions of the erstwhile Directorate of Exhibitions and Commercial Publicity, trade fair organisation and the Indian Council of Trade Fair Exhibitions. The Authority started functioning in March 1977 and has conducted several important trade fairs. The main functions of the TFAI are participation in international trade fairs, holding exclusive Indian exhibitions abroad, organisation of exhibitions, fairs and specialised displays in India, provision of assistance to Indian parties for direct participation, international fairs, organisation of commercial publicity through mass media, etc.

During 1982-83, the TFAI's programme includes participation in 20 international fairs, 4 wholly Indian exhibitions, besides participaing in 14 specialised commodity fairs abroad. It has organised two exclusive Indian exhibitions at Kuala Lumpur and London.

The Indian International Trade Fair was held from 1-14 November 1982 in New Delhi. Thirty four foreign countries and 9 foreign companies represented the international sector while 17 Central Ministries/Departments, 26 state governments and union territories, 20 public sector companies and 23 private enterprises represented the national sector in this fair. It is estimated that business of the order of Rs 925 crore was transacted during this fair.

INTERNAL TRADE

The internal trade of India is many times larger than its external trade, owing to the vastness of the country, its varied climate and diverse natural resources. It can be classified under five broad heads : (i) rail-borne trade, (ii) river-borne trade, (iii) coasting trade, (iv) trade borne on other craft, and (v) trade by air. Complete and precise data about internal trade are not possible as reliable statistics pertaining to items (iv) and (v) are not available.

Rail-and-River Borne Trade

Statistics of rail-and-river-borne trade are based on the invoices of the railways and steamer companies. Since April 1965, they are being recorded on 'export' basis. For the purpose of these statistics, India is divided into a number of trade blocks, roughly representing the states of the Indian Union. The chief port towns of Bombay, Calcutta, Cochin and Madras are constituted as separate trade blocks. Similarly, the less important ports are grouped as 'other ports', each of which is treated as separate trade block. The number of trade blocks since April 1977 is 38.

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Quantities expressed in net weight are available as value figures are not recorded in the railway and steamer companies invoices. Besides, the trade carried by only one steam company between three trade blocks was recorded from April 1960 to August 1965. The company suspended its river service from September 1965.

Coasting Trade

Coasting trade is recorded under two broad heads—(i) internal trade, i.e., trade amongst the ports within the same maritime block, and (ii) external trade, i.e., trade between one maritime block on the one hand and all other maritime blocks on the other.

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20 TRANSPORT

RAILWAYS

The Indian railways are the nation's lifeline and the principal mode of transport in the country. From a modest beginning in April 1853, when the first railway train steamed off from Bombay to Thana, a stretch of 34 km, the Indian railways, with a route kilometrage of 61,230 (as on 31 March 1982) have now grown into Asia's largest and world's fourth largest railway system. It is also the biggest public undertaking in the country.

Indian railways had total assets of Rs 8,164.3 crore on 31 March 1982 and a staff strength of over 15.7 lakh regular employees apart from 2.3 lakh casual labour. During 1981-82 they carried 370.44 crore passengers and 24.58 crore tonnes of freight traffic. Indian railways run about 11,000 trains every day, connecting 7,072 stations. The Indian railways operate on three gauges—the broad gauge, metre gauge and narrow gauge. The operational fleet consisted of 10,915 locomotives, 37,958 coaching vehicles and 3,92,147 wagons.

The progress of the government railways for selected years since 1950-51 has been given in table 20.1 and 20.2.

TABLE 20·1
PROGRESS OF RAILWAYS

	Route length (kilometre)			Running track (km)	Passengers Originating (lakh)	Goods Originating (lakh tonne).
	Electrified	Non-Electrified	Total			
1950-51 . .	388	53,208	53,596	59,315	12,840	930
1960-61 . .	748	55,499	56,247	63,602	15,940	1,562
1965-66 .	2,423	55,976	58,399	68,375	20,820	2,030
1970-71 . .	3,706	56,084	59,790	71,669	24,311	1,965
1975-76 . .	4,559	55,557	60,216	74,255	29,452	2,233
1980-81 . .	5,345	55,895	61 240	75,860	36,125	2,200
1981-82 . .	5,473	55,757	61,230	75,964	37,044	2,458

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Modernisation of Railways

Tables 20.1 and 20.2 also show the trend towards modernisation of railways. The electrified route length has increased more than 14 times since 1950-51. Steam locomotives, production of which was discontinued from 1972, are being gradually replaced by electric and diesel locomotives.

Since the beginning of the five year plans in 1950-51, the number of diesel locomotives has gone up by more than 147 times, from a mere 17 in 1951 to 2,515 in 1981-82 and of electric locomotives by more than fourteen times, i.e., from 72 to 1,104. Diesel and electric locomotives together carried 93.7 per cent of the total goods traffic in terms of gross tonne km in 1981-82. Modernisation and improvement of signalling and telecommunications have also made much headway. In 1981-82 the multi-channel microwave link was in operation on 13,441 km.

TABLE 20·2
ROLLING STOCK

Year	Number of locomotives				Number of coaching vehicles[1]	Number of wagons
	Steam	Diesel	Electric	Total		
1950-51 . .	8,120	17	72	8,209	19,628	2,05,596
1960-61 . .	10,312	181	131	10,624	28,439	3,07,907
1965-66 . .	10,613	727	403	11,743	32,922	3,07,019
1970-71 . .	9,387	1,169	602	11,158	35,145	3,83,990
1975-76 . .	8,496	1,803	796	11,095	36,821	3,95,250
1980-81 . .	7,469	2,403	1,036	10,908	38,327	4,00,946
1981-82 . .	7,296	2,515	1,104	10,915	37,958	3,92,147

1. Includes Electric Multiple Units (EMU).

Indian railways have made remarkable progress in attaining self-sufficiency in equipment and stores. At the beginning of the era of planned development in 1950-51, Indian railways were importing about 23 per cent of their equipment and stores. Such imports were reduced to 8.7 per cent in 1981-82.

There has also been a progressive increase in expenditure on the development of railways under the five year plans. It was Rs 423.73 crore, Rs 1,043.69 crore, Rs 1,685.63 crore, Rs 1,419.76 crore and Rs 1,489.53 crore in the First, Second, Third, Fourth and Fifth Plans, respectively.

Manufacture of Rolling Stock

Railway locomotives are built in Chittaranjan Locomotive Works, Chittaranjan, and Diesel Locomotive Works, Varanasi, both of which are administered by the Ministry of Railways. Chittaranjan Locomotive Works (CLW) produced its first engine in 1950-51 and achieved a production level of 173 locomotives per year during 1959-60, against the target of 168. In December 1971, it produced its last steam engine, taking its total production to 2,351 units, before it switched over to the manufacture of mainline electric and diesel hydraulic shunting locomotives. During the same period, most of the metre gauge steam engines were built by TELCO, a private sector firm.

CLW turned out its first DC electric loco in 1961-62 and the first diesel-hydraulic shunter in 1967-68. Overall production till March 1982 totalled 878 electric locos, 424 diesel-hydraulic shunters and 49 narrow gauge diesel-hydraulic locos. This included 4WAP-1 electric locos fitted with two stage suspension flexi-coil bogies having

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a speed potential of 130 km/hr and 4 medium hp diesel electric shunters (WDS-8) for steel plants.

Diesel electric main line locos as also heavy duty shunters are built by the Diesel Locomotive Works (DLW). This unit commenced production of broad gauge locomotives in 1963-64 and from 1968-69 it also started manufacturing metre gauge locomotives. No diesel electric locos have been imported since then. Upto March 1982 this unit had delivered 1,608 locomotives of various types.

Bulk of the passenger service vehicles are manufactured in the Integral Coach Factory (ICF), Perambur, which is also administered by the Ministry of Railways. ICF's production is supplemented by two public sector undertakings—Bharat Earth Movers Ltd., and Jessops. These three together meet the entire requirements of the railways.

Since ICF commenced production of passenger coaches in 1955-56, it had turned out 13,410 passenger service vehicles (fully furnished coaches) till March 1982. The passenger service vehicles produced by ICF and Jessops include EMUs also. The electrical equipment for these are manufactured by another public sector unit—Bharat Heavy Electricals Ltd.

The railways' requirement of wagons is met mostly by the industry which includes units both in the public sector and private sector. Three railway repair workshops supplement the production of these units. In 1981-82, production totalled 17,362 wagons in terms of 4-wheelers, of which 16,284 were turned out by the industry.

Railways' requirements of wheels and axles are at present met only in part by indigenous production and the rest are being procured from foreign manufacturers. In order to prevent heavy drain on foreign exchange, the railways are setting up a wheel and axle plant at Yelahanka, Bangalore, which is expected to go into partial production in 1983. This plant will produce approximately 70,000 wheels and 23,000 axles per year.

Passenger Traffic and Amenities

The passenger traffic was over 37 crore in 1981-82 as against 12.8 crore in 1950-51. The earnings from the second class passengers were Rs 871 crore in 1981-82 as compared to Rs 84.47 crore in 1950-51.

The average rate charged per passenger for every kilometre was 3.03 paise (ordinary) and 5.42 paise (mail/express) for second class passengers, 14.1 paise for first class and 39.4 paise for air-conditioned class passengers. The rates for second class passengers were among the lowest in Asia.

There have been consistent efforts on the part of the Railway Administration to bring about qualitative improvement in the level of comforts, particularly for passengers travelling in second class who constitute over 97 per cent of the total passenger traffic. Steps taken to improve the travel conditions of second class passengers include providing cushioned berths/seats in second class coaches, augmentation of the sleeper accommodation on mail and express trains, improving the reservation system, throwing open of the refreshment/pantry cars for use of second class passengers, sale of janata meals and provision of clean environment. With a view to eliminating overcrowding in reserved coaches, travelling ticket examiners and coach attendants were provided in second class sleeper coaches/air conditioned two tier coaches/full corridor type first class coaches.

The task of providing basic amenities, such as, proper booking

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arrangements, waiting halls and drinking water supply at all stations was completed in 1970-71. Catering arrangements are available at 3,253 stations and 80 pairs of trains. Ready-to-serve food and cheap food packets are supplied in several trains.

Goods Traffic

The railways carried over 25 crore tonnes of goods in 1981-82 as compared to 9.3 crore tonnes in 1950-51. The freight revenue was Rs 2,250.34 crore in 1981-82. To speed up movement of freight, many fast goods trains have been introduced on important routes.

Some of the principal commodities carried by the Indian Railways during 1981-82 was about 8.88 crore tonnes of coal, 2.97 crore tonnes of metallic ores (excluding manganese ore), 2.15 crore tonnes of food grains, 1.66 crore tonnes of mineral oil, 1.20 crore tonnes of iron and steel, 1.08 crore tonnes of cement and 9.57 crore tonnes of chemical manures.

To provide door-to-door service, a container service is also operated. The containers are carried on guaranteed schedules by fast goods trains. Another significant achievement of 1980-81 was the introduction of container service linking India and Nepal for the movement of Nepalese cargo.

Administration

The responsibility for the administration and management of government railways vests in the Railway Board under the overall supervision of a Cabinet Minister. The Board consists of a Chairman, who is *ex-officio* Principal Secretary to the Government of India in the Ministry of Railways, a Financial Commissioner and three other members, who are all *ex-officio* Secretaries to Government of India in the Ministry of Railways.

Railway Zones

The railways are divided into nine zones, each headed by a General Manager, who is responsible to the Railway Board for operation, maintenance and financial matters.

The nine zones, with their headquarters and the route kilometres, in brackets, are : Central (Bombay-VT; 6,309), Eastern (Calcutta; 4,204), Northern (New Delhi; 10,972), North-Eastern (Gorakhpur; 5,163), North-East Frontier (Maligaon-Guwahati; 3,613), Southern (Madras; 6,703), South-Central (Secunderabad; 6,932), South-Eastern (Calcutta; 7,041), and Western (Bombay-Churchgate; 10,293).

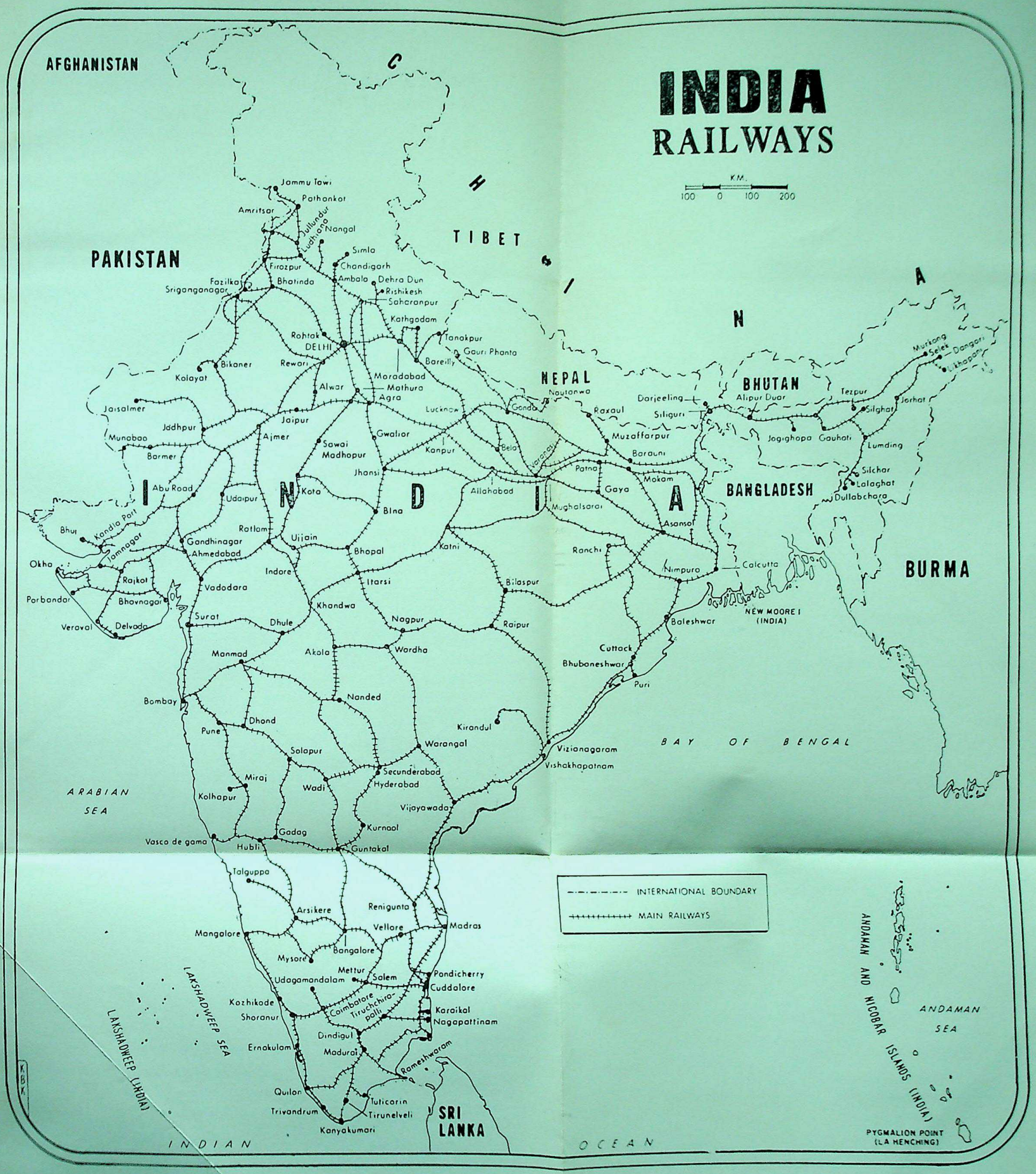
Cooperation between the public and the railway administration is secured through various committees including National Railway Users' Consultative Council, Zonal Railway Users' Consultative Committees, and Divisional Railway Users' Consultative Committees.

Railway Finances

Since 1924-25, railway finances remain separated from general revenues. They have their own funds and accounts and the railway budget is presented separately to Parliament. However, the railways contribute to the general revenues a fixed rate of dividend on the capital invested. The quantum of contribution which at present include the dividend, payment in lieu of the merger of passenger tax with passenger fares and contribution to the Railways Safety Works Fund, is reviewed periodically by a Parliamentary Convention Committee. So far, six such committees have been appointed.

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The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropria'e base line.

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Welfare

Several schemes are in operation for the welfare of the railway employees who numbered 18 lakh (15.7 lakh regular and 2.3 lakh casual) in 1981-82 as against 9.1 lakh in 1950-51. Among the important amenities are the provision of housing and medical facilities, holiday homes at hill stations and schools and hostels. Between 1951 and 1982 (31 March), about 5.81 lakh residential units, 105 hospitals and 572 health centres were maintained for the staff. The number of holiday homes at hill stations and other places was 28.

ARCH
TRAINING

The Research, Design and Standards Organisation (RDSO) was set up in 1957 for achieving self-sufficiency in the designing and manufacture of railway equipment. The RDSO was formed by the merger of the Central Standards Office and the Railway Testing and Research Centre. It has its headquarters at Lucknow with branches at Lonavala and Chittaranjan.

Over the years, the RDSO has helped the railways in indigenisation in all fields of railway operations and has also made it possible for them to export a number of items of railway equipment. It has recently produced an all-aluminium overhead equipment for railway electrification, which is the first such equipment made entirely from aluminium in the world. In the field of locomotion, RDSO has successfully evolved a design to repower pack the imported metre gauge YDM-1 class locomotives and give them a new lease of life, by utilising 700 hp diesel engines produced at Chittaranjan Locomotive Works.

The railways have four major training institutions. They are: Railway Staff College, Vadodara; Indian Railways Institute of Advanced Track Technology, Pune; Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad; and Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur. These institutes also train foreign officials.

ONSULTANCY
RVICES

The Indian railways have two organisations in the public sector engaged in providing high level consultancy services on rail technology and execution of railway projects. They are—the Rail India Technical and Economic Services (RITES) and the Indian Railways Construction Company (IRCON).

SHIPPING

India has the largest merchant shipping fleet among the developing countries, and ranks fifteenth in the world in shipping tonnage.

As compared to 1.92 lakh GRT (gross registered tonnage) at the time of Independence, the country's operation tonnage on 31 March 1982 was 59.41 lakh GRT. Public sector undertakings of the Central Government owned 32.07 lakh GRT i.e., 53.98 per cent on the total GRT.

hipping Bodies

The National Shipping Board is a statutory body set up under the Merchant Shipping Act, 1958 to advise the Central Government on shipping matters. The Technical Review Committee in the Union Ministry of Shipping and Transport advises on the steps to be taken to ensure proper coordination of shipping arrangements for government owned/controlled cargoes and to utilise Indian tonnage to the maximum extent possible. The All India Shipping Council is concerned with negotiation on freight and shipping problems with shipping companies

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and conferences. The Indian National Shipowners Association promotes the interests of national shipping, ship-building and other allied industries.

Shipping Companies

There are 66 shipping companies in the country of which 16 are engaged exclusively in the coastal trade, 43 in overseas trade and the remaining 7 both in coastal and overseas trade. Both the Central Government shipping companies, viz. Shipping Corporation of India (SCI) and the Mogul Line Ltd. carry on both the coastal and overseas trade.

The SCI, which is one of the biggest shipping lines of the world, had a merchant fleet of 146 vessels with 30.08 lakh GRT at the end of 1981-82 and operated on almost all the important maritime routes. During 1981-82, the SCI had operating earnings of Rs 545.47 crore. The tonnage of SCI accounts for about 51 per cent of the total Indian tonnage.

The Mogul Line Ltd. mainly carries Haj pilgrims from Bombay to Jeddah (Saudi Arabia) and back. It also operates passenger vessels on the Konkan coast and liner service to Red Sea and West Asia Gulf ports. Its fleet consists of 16 vessels with the total 1.991 lakh GRT.

The major private sector shipping companies which own one lakh or more GRT are the Scindia Steam Navigation Company Ltd. (5.61 lakh GRT), Great Eastern Shipping Company Ltd. (4.04 lakh GRT), India Steamship Company Ltd. (2.02 lakh GRT), South India Shipping Corporation Ltd. (1.51 lakh GRT), Damodar Bulk Carriers Ltd. (1.61 lakh GRT), Chowgule-Steamships Ltd. (1.60 lakh GRT) and Dempo Steamships Ltd. (1.48 lakh GRT).

Almost all the coastal trade is carried by national vessels. With the progressive normalisation of relations with Pakistan and China, trade with these countries has been resumed and Indian ships have started calling at their ports. India has ratified the UN convention on Code of Conduct for Liner Conferences, which was signed by India on 14 February 1978.

Training Institutions

There are six training establishments for merchant navy officers and ratings. *T. S. Rajendra* at Bombay imparts pre-sea training to navigation cadets. The Lal Bahadur Shastri Nautical and Engineering College, Bombay, conducts post-sea instrumental courses in navigation and engineering. The Directorate of Marine Engineering Training at Bombay and Calcutta imparts training to marine engineering cadets. *Bhadra* at Calcutta, *Mekhala* at Visakhapatnam and *Navlakshi* at Navlakshi provide pre-sea training for deck and engineering ratings and Bhandaris. Training in three rating institutions has been stopped for the time being following prevailing unemployment amongst the seamen.

Indian Register of Shipping

India's national classification society came into being in March 1975 with the main objectives, *viz.* (i) to provide a faithful and accurate classification and record of mercantile shipping classed with IRS, (ii) to establish and administer standards for the construction and periodical surveys of ships and other marine structures, (iii) to approve designs of, to survey and to issue reports on land installations, machinery, materials and apparatus of all kinds and (iv) to aid and develop the merchant marine of India. From a humble

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beginning, IRS has come a long way. It has 265 ships in its class aggregating 28.9 lakh GRT comprising of 177 dual class and 88 single class vessels as on 31 March 1983. Seventy four vessels are being built under its single classification in various shipyards in India and 27 vessels are being built under its dual classification in various shipyards in India and abroad. It has Dual Class Agreements with many International Classification Societies to enable surveys to be carried out aboard its classed ships. It is now actively engaged in inspection and certification of landbased plants, equipments and components as per the purchaser's specifications. It has been appointed by the Government of India as one of the assigning authorities for Load Line. It is also authorised by the Government to carry out cargo ship safety construction surveys on its behalf.

SHIP-BUILDING

India has four major ship-building yards, *viz*, Cochin Shipyard at Cochin, Hindustan Shipyard at Visakhapatnam, Garden Reach Ship Builders and Engineers at Calcutta and Mazagon Dock at Bombay. All these shipyards are in the public sector.

There are at present 15 major repair dry docks—five at Bombay, six at Calcutta, two at Visakhapatnam and two at Cochin. Although most of these dry docks can accommodate ships of only less than 10,000 DWT, one dock at Bombay can take ships upto 20,000 DWT and one at Hindustan Shipyard at Visakhapatnam, bulk carriers, upto 70,000 DWT and another at Visakhapatnam upto one lakh DWT.

Hindustan Shipyard

The Hindustan Shipyard has built 80 ships since 1947. Its present annual production capacity is about 3 ships of 21,500 DWT. Apart from a dry dock, which is in operation since 1971, the West Basin Project has also been partially commissioned for ship repair work.

A development and modernisation programme (stage II development) at an estimated cost of Rs 55 crore was taken up for execution during 1982. On completion by the end of 1984, this programme is expected to augment the capacity of the shipyard to 6/7 ships of 21,500 DWT each per year.

Cochin Shipyard

The Cochin Shipyard set up with the Japanese collaboration is designed to have a dock for building ships upto 85,000 DWT and a repair dock to accommodate ships up to one lakh DWT. The first vessel of 75,000 DWT built at the shipyard for the Shipping Corporation of India was delivered in 1981.

NAVIGATIONAL AIDS

The Central Government looks after the general navigational aids, while the states, port trusts and other agencies are responsible for the local aids. However, under the Lighthouse Act, 1927 the Central Government exercises general control over all aids through the Department of Lighthouses and Lightships. The Department maintains various navigational aids along the coast of India besides launches and VHF wireless sets. There are, among others, 147 lighthouses, 12 lightbuoys, 13 fog signals, 14 radio beacons, 12 decca navigator chain stations, one light vessel, 6 recons and 21 VHF/RT sets. In the Sixth Plan Rs 12 crore have been provided both for spillover and new schemes.

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INLAND WATERWAYS

India has about 5,200 km of major rivers, which are navigable by mechanised craft, but only 1,700 km are actually utilised. As regards canals, the available length is 4,300 km but only a length of 485 km is suitable for mechanised craft, of which only 331 km are being actually utilised.

Important among the navigable rivers are the Ganga and Brahmaputra and their tributaries; the Godavari, Krishna, Mahanadi, Narmada and Tapi and their canals; the backwaters and the canals of Kerala, the Buckingham canal in Andhra Pradesh and Tamil Nadu and the Cumbarjua canal connecting Mandovi and Zuvari rivers in Goa and the network of tidal rivers in Sundarbans area with their inter-lacing offshoots.

Inland water transport is a state subject. The development schemes are mostly taken up by the states as centrally-sponsored schemes. In the Fifth Plan, a provision of Rs 24.92 crore for central and centrally-sponsored schemes was made for development of inland water transport. The actual expenditure incurred during 1974-78 was, however, Rs 9.87 crore. The expenditure during 1978-80 was Rs 4.22 crore.

In the Sixth Plan, a provision of Rs 45 crore has been made for development of inland water transport. The actual expenditure incurred during 1980-81 and 1981-82 was Rs 3.64 crore and Rs 5.16 crore respectively. A provision of Rs 9 crore was made for 1982-83 while Rs 12 crore have been provided for 1983-84.

Inland Water Transport Bodies

The Central Inland Water Transport Board, New Delhi, formulates policy for the development of inland water transport in the country. The Inland Water Transport Directorate of the Union Ministry of Shipping and Transport gives technical advice to the states, which are responsible for the development of inland waterways.

All the states except Jammu and Kashmir have set up inland water transport organisations to formulate and implement schemes for development of inland waterways.

The Inland Water Transport Directorate has a Regional Office functioning at Patna. This office besides operation of experimental-cum-promotional longitudinal service on Ganga between Patna and Ghazipur/Chunar and LTC ferry service between Colgong and Karagola, is also engaged in carrying out hydrographic surveys and marking navigable channels of the rivers. The creation of a sub-office of this Regional Office at Varanasi and another sub-office at Guwahati has been sanctioned.

The National Waterways (Allahabad-Haldia stretch of Ganga Bhagirathi-Hooghly Rivers) Act, 1982 provides that it shall be the responsibility of the Central Government to regulate and develop this waterway and to secure the efficient utilisation of this waterway for shipping and navigation.

Inland Waterways Authority of India.

A proposal to set up Inland Water Transport Authority of India for development, maintenance and management of waterways as recommended by National Transport Policy Committee, is under consideration.

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Central Inland Water Transport Corporation

The Central Inland Water Transport Corporation, set up in 1967 at Calcutta, operates the river services carrying goods between Calcutta and Assam *via* Bangladesh. It is also operating river services between Calcutta and Farakka and river-cum-road service between Calcutta and Cachar. Its other activities include ship-building and ship-repairing, clearing agency at Calcutta and dredging on the Bhagirathi.

PORTS

There are 10 major and 139 minor working ports (out of a total of 226 minor ports in all) scattered along the coastline of about 6,000 km on the east and west. Major ports are the direct responsibility of the Central Government in the Ministry of Shipping and Transport, while minor ports figure in the concurrent list in the Constitution and are managed and administered by the respective state governments.

MAJOR PORTS

The major ports on the west coast of India are Bombay, Kandla, Mormugao, New Mangalore and Cochin. A new major port project Nhava Sheva has been sanctioned in June 1982. On the east coast are Tuticorin, Madras, Visakhapatnam, Paradip, Calcutta and Haldia. Major ports are statutory bodies administered in accordance with the provisions of the Major Port Trust Act, 1963. Each port has a Board of Trustees representing various interests connected with port operations and the shipping industry.

Among the major ports, Bombay is the biggest. It is a natural harbour. It handles about one-fifth of the total traffic at the ports, bulk of which consists of petroleum products and dry cargo. Kandla is a tidal port having a free trade zone. It handles traffic consisting of mainly petroleum products and fertilizers. Of late, foodgrains, cotton, cement and edible oils are also being handled. Mormugao port enjoys the second position in the total traffic tonnage, bulk of which is export of iron ore. Facilities for export of Kudremukh iron ore have been developed at New Mangalore port. The other traffic handled at this port are fertilizers and petroleum products, granite stones and dry cargo. Cochin is a natural harbour. The traffic handled at this port consists of mainly petroleum products, fertilizers and general cargo. Tuticorin port handles mainly salt, coal, oil and dry cargo. Madras is one of the oldest ports of the east coast. It handles largest volumes of traffic in general cargo next to Bombay and Calcutta including Haldia. The traffic handled at this port consists mainly of petroleum products, iron ore and the dry cargo. Visakhapatnam is the deepest land-locked and protected port where an outer harbour has been developed for exporting mainly iron ore to Japan. The other traffic handled at this port mainly consists of oil, coal and dry cargo. Paradip port mainly handles iron ore and some quantities of coal and dry cargo. Calcutta is a riverine port handling diversified commodities. A new mechanised dock system at Haldia with provision for deep draft vessels down stream of Calcutta supplements the facilities already available at Calcutta port. Haldia has a fully equipped containerised berth. The traffic handled at this port consists of mainly petroleum products and dry cargo.

The major ports handled 8.74 crore tonnes of overseas and coastal traffic during 1981-82.

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The Sixth Plan has an allocation of Rs 521 crore for the development of major ports (excluding Nhava Sheva). The emphasis in the Plan is on modernisation of existing port facilities and providing additional capacities to meet the expanding needs of the country.

Construction of the new major port project of Nhava Sheva was sanctioned on 8 June 1982 at an estimated cost of Rs 592 crore. This is expected to become operational in 1986-87.

MINOR AND INTERMEDIATE PORTS

Developmet and management of the minor ports is the responsibility of the state governments. The Central Government provides technical advice to state governments, if asked for.

Allocations for the development of minor ports are made in the respective maritime states plans. However, the development of ports in Andaman and Nicobar Islands and Lakshadweep is the responsibility of the Central Government and a sum of Rs 20 crore has been provided for this purpose in the Sixth Plan.

Dredging Corporation of India

The Dredging Corporation of India was set up in March 1976 to undertake capital and maintenance dredging at the ports in an integrated manner. The Corporation has a fleet of 8 dredgers and other ancillary craft.

The total turnover of the Corporation for 1981-82, was highest so far, namely Rs 32.27 crore representing 26.65 per cent increase over 1980-81.

National Harbour Board

The National Harbour Board was set up in 1950 to advise the Central and state governments on the management and development of ports, particularly minor ports. It consists of representatives of the maritime states, the central ministries, concerned port authorities and non-official members representing Parliament, shipping, trade, industry and harbour.

ROADS

The Indian road network is one of the largest in the world. The total road length comprising national highways, state highways and other state PWD roads was 5,40,720 km in 1979-80. The road development programme envisaged under the Sixth Plan lays emphasis on a coordinated and balanced development of road network in the country under (i) primary roads comprising national highways, (ii) secondary and feeder road system covering state highways and major district roads and (iii) rural roads including village roads and other district roads. Substantial outlays are proposed for road development in the rural and the tribal areas.

Plan Expenditure

In the first three Plans and the three Annual Plans, a sum of Rs 1,134.86 crore was spent on road development. The Fourth Plan and Fifth Plan expenditure was Rs 826.94 crore and Rs 1,348 crore, respectively. The outlay for road development under the Sixth Plan for central sector is Rs 830 crore and for state sector Rs 2,609 crore.

National Highways

The Central Government is directly responsible for the national highways system. In 1947, approximately 2,500 km of missing road

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links, and thousands of culverts and bridges, which did not exist, were required to be constructed to have an integrated and continuous network. There was an increase in the missing road links owing to the addition of new roads to the national highways system in later years. Up to 31 March 1982, missing road links including diversions constructed totalled 4,474 km, improvement to low grade sections completed in 22,959 km, widening and strengthening single lane sections to double lane carriageway done in 20,848 km and 368 major bridges constructed. The present national highways system includes a total road length of 31,358 km. An outlay of Rs 660 crore has been provided in the Sixth Plan for the development of national highways.

State Sector Roads

State highways and district and rural roads are the responsibility of state governments and are maintained by various agencies in the states and union territories. Roads will be developed in rural areas under the minimum needs programme, the objective being to link all villages with a population of 1,500 and above with all-weather roads during the Sixth Plan.

The Central Government assists in the development of certain selected roads in the states.

Border Roads Development Board

The Border Roads Development Board (BRDB) was set up in 1960 to coordinate and oversee the development of communication (primarily road) facilities in the north and north eastern border areas of the country and thereby to accelerate the economic development of these areas.

The cumulative progress achieved under the BRDB programme in respect of road works upto December 1982, is : (a) construction of new roads/improvement of existing roads—14,245 km and (b) surfacing of roads—10,977 km.

Some of the important roads constructed and being maintained under the Board's programme are National Highway 1-A from Jammu to Srinagar, National Highway 31-A from Sivok to Gangtok and National Highway 22 from Simla to Poo.

The Board's present programme included (a) development of the newly declared national highways nos. 52, 53 and 54, (b) construction of roads under the sensitive border areas programme and the strategic roads programme of the Ministry of Shipping and Transport and (c) construction of inter-state and roads of economic importance under the programme of the North Eastern Council.

Border Roads

The Border Roads Organisation (BRO) is one of the biggest departmental road construction agency in the country. It is equipped with the required road construction equipment and trained manpower for speedy construction of road works in very difficult areas. Most of the roads and other construction works under BRDB programme are executed by the BRO. The remaining works are got done through the central and state PWDs.

During 1981-82, the BRO, apart from maintaining 13,067 km of roads under its charge, constructed/improved 348 km of roads and undertook construction of permanent works amounting to Rs 30.03 crore.

The BRO's activities spread over the north and north-eastern

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states covering Rajasthan, Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Bihar, Sikkim, Assam, Meghalaya, Nagaland, Tripura, Manipur, and Mizoram, Arunachal Pradesh and Andaman and Nicobar Islands, as also Bhutan.

The BRO has been rendering assistance to the Indian Road Construction Corporation, which has been undertaking road construction works in Libya and other foreign countries.

Length of Roads

The total length of national highways, state highways and other state PWD roads in India was 5,40,720 km (both surfaced and unsurfaced roads) in 1979-80. Statewise break-up of length of roads is given in table 20.3.

TABLE 20·3
LENGTH OF ROADS IN INDIA

State/Union Territory	Surfaced roads	Unsurfaced roads	Total
Andhra Pradesh	35,714	17,134	35,718
Assam	5,876	17,134	23,010
Bihar	16,459	5,186	21,645
Gujarat	12,118	737	12,855
Haryana	17,360	2,171	19,531
Himachal Pradesh	3,683	12,386	16,069
Jammu and Kashmir	6,257	2,525	8,782
Karnataka	49,753	14,750	64,530
Kerala	16,078	1,423	17,501
Madhya Pradesh	45,756	14,911	60,667
Maharashtra	27,002	5,781	32,783
Manipur	1,645	1,700	3,345
Meghalaya	2,430	1,876	4,306
Nagaland	1,639	3,377	5,016
Orissa	12,435	5,547	17,982
Punjab	31,862	—	31,862
Rajasthan	30,088	10,311	40,399
Sikkim	1,013	24	1,037
Tamil Nadu	35,138	283	35,421
Tripura	1,117	5,186	4,303
Uttar Pradesh	45,361	13,231	58,597
West Bengal	15,217	1,671	16,888
Andaman and Nicobar Islands	552	36	588
Arunachal Pradesh	2,328	1,380	3,700
Chandigarh	14	—	14
Dadra and Nagar Haveli	182	34	216
Delhi	300	—	300
Goa, Daman and Diu	2,321	—	2,321
Lakshadweep	—	—	—
Mizoram	8	876	884
Pondicherry	459	10	469
TOTAL	4,20,165	1,20,555	5,40,720

NATIONALISATION OF ROAD TRANSPORT

Most of the states and union territories have nationalised passenger transport in varying degrees. In the country as a whole, an estimated 60 per cent of the buses were being run by the public sector undertakings as on 31 March 1982. Statutory Corporations have been set up under the Road Transport Corporations Act, 1950, in several states. In other states, the nationalised services are

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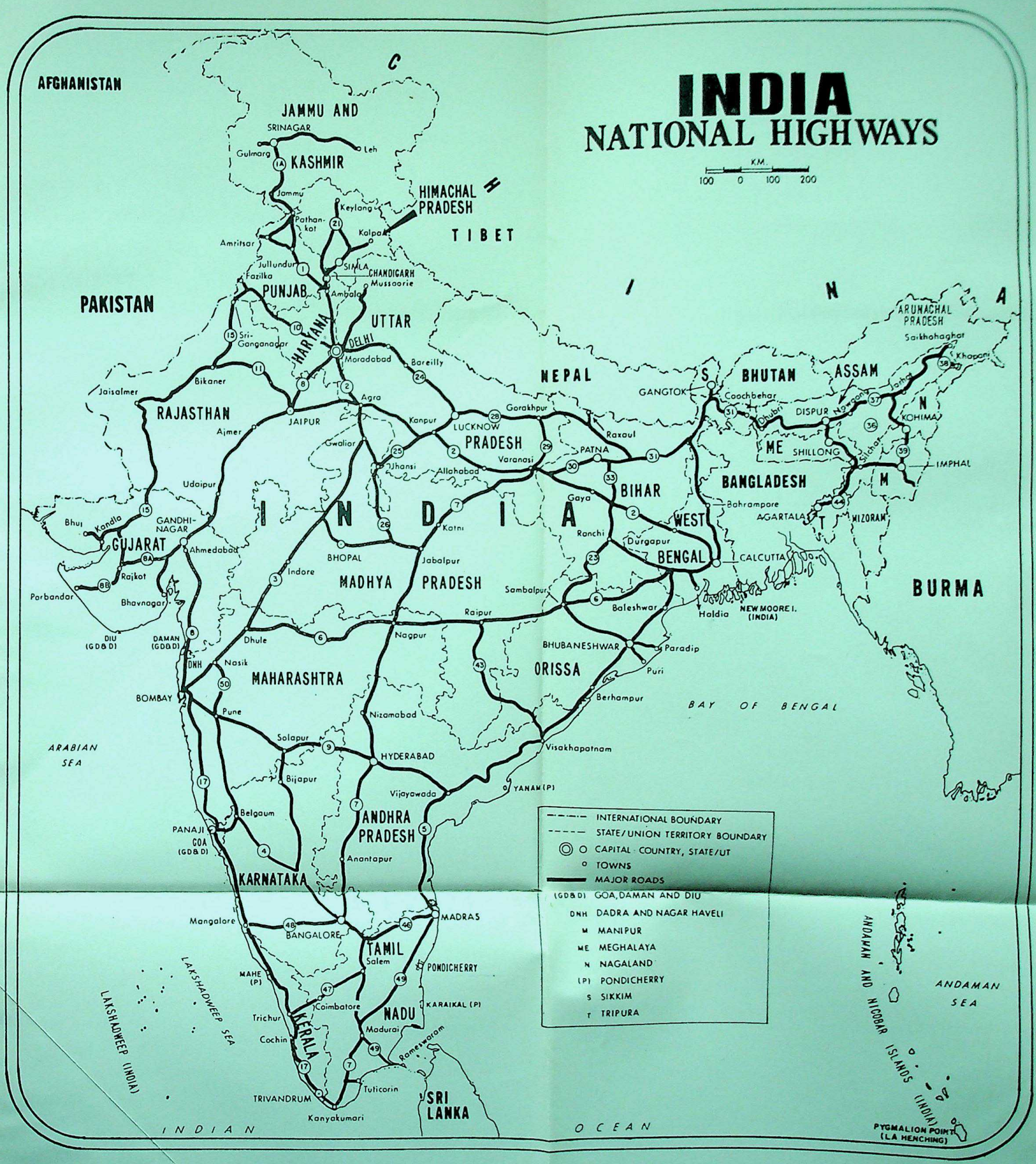
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INDIA
NATIONAL HIGHWAYS



The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

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operated departmentally or by municipal corporation or registered companies. In most of the big cities, bus services are state owned. Goods transport is almost exclusively in the private sector.

National Permits Scheme

For removal of constraints on the movement of goods by road transport, a scheme of national permits for public carriers was introduced in 1975. Under the scheme the Central Government has specified the number of national permits each state/union territory administration can issue. The maximum number of permits to be issued initially was fixed at 5,300 which was raised to 8,300 in 1979 and 16,600 in 1980 and has now increased to 24,900. So far, about 15,000 national permits have been issued.

Zonal Permit Scheme

For the implementation of the zonal permit schemes reciprocal agreements are concluded between various participating states forming a zone. The deliberations and the agreements are done under the auspices of the Inter-State Transport Commission. The agreements are revised/reviewed as and when necessary.

Passenger Vehicles

Passenger vehicles fleet in the public sector, during the last 12 years, has increased to over 78,869 in 1982 from 35,193 in 1970. Lately there has been persistent demand for more services particularly in metropolitan cities. About four crore commuters are carried every day by the state transport undertakings which employ about 5.70 lakh persons.

Road Transport Motor Vehicles

The total number of motor vehicles on roads as on 31 March 1980 was 41.06 lakh. These included 18.88 lakh two-wheelers, i.e. motor cycles and scooters, 8.84 lakh cars and jeeps, 2.54 lakh buses including three-wheeler passenger vehicles, 0.92 lakh taxis, 4.67 lakh trucks including three-wheeler goods tempos, 3.60 lakh tractors, 1.29 lakh trailers and 0.32 lakh others not classified.

Transport Bodies

To ensure coordination between the central and state policies and operation of the different modes of transport, the Central Government has set up a Transport Development Council. The Inter-State Transport Commission is responsible for the development, coordination and regulation of road transport services on inter-state routes. As a result of the efforts made by the Commission, almost all the states and union territories now have reciprocal arrangements for operation of goods and passenger services on inter-state routes. They have introduced zonal permit schemes for the unhindered movement of limited number of public goods carriers over the national and state highways on payment of tax at a single point.

An Association of State Road Transport Undertakings, set up in 1963, coordinates the activities of 54 state undertakings and helps secure procedural uniformity, higher standards of services and economic operation.

TOURISM

In 1982, 12,88,162 tourists (including nationals of Pakistan and Bangladesh) visited India as compared to 12,79,210 in 1981. The foreign exchange earnings from tourism were estimated at Rs 750 crore for 1982 as against Rs 702 crore in 1981. India's potential for tourism is as vast as it is varied. While the infrastructure at

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home is being strengthened, promotional activities are undertaken abroad to attract more tourists. With a view to diversifying tourist attractions, the Department of Tourism has taken up development of beach and mountain resorts. A sum of Rs 25 crore has been provided for developing tourism in the Sixth Plan. In addition, India Tourism Development Corporation has been allocated Rs 42 crore.

A new approach to the planning of tourist infrastructural facilities has been given by introducing the concept of travel circuits whereby facilities would be developed at tourist centres falling along identified travel circuits.

In order to attract more tourist to India, the Department of Tourism undertakes extensive publicity in major tourist generating markets of the world through its 23 tourist offices located in North America, Europe, Australasia, West Asia and East Asia.

TOURISM BODIES

The Department of Tourism of the Union Ministry of Tourism and Civil Aviation has both promotional and organisational functions and works in close cooperation with the India Tourism Development Corporation. Several states and union territories have set up tourism departments and offices.

The Department of Tourism has a chain of regional offices at home and abroad. Regional offices are functioning in Bombay and Delhi with sub-offices at Calcutta, Madras, Agra, Aurangabad, Cochin, Jaipur, Khajuraho, Varanasi, Guwahati, Shillong, Itanagar and Imphal. The tourist offices at Lucknow and Bangalore have also started functioning. These offices work in close collaboration with state governments, travel agents, hoteliers and carriers. Government have approved opening of new tourist offices at Patna, Bhubaneswar, Port Blair, Goa and Hyderabad.

Overseas India has tourist offices in New York, Los Angeles, Chicago, Toronto, London, Geneva, Paris, Frankfurt, Brussels, Stockholm, Milan, Vienna, Kuwait, Bangkok, Tokyo, Singapore and Sydney. In addition, tourist promotion offices are based at Dallas, Miami, San Francisco, Washington, Osaka and Melbourne. The various tourist offices abroad are functioning under a scheme of close collaboration between the Department of Tourism and Air India for promotion of tourist traffic from the respective regions.

To feed promotional material to these offices, Indian embassies and Air India, the Department of Tourism produces tourist publicity literature in English, German, Spanish, French, Italian, Persian, Arabic, Japanese and Thai languages. In order to cater to domestic tourism, literature in Hindi is also produced. Tourist offices maintain film and photo libraries on subjects of tourist interest.

ACCOMMODATION AND OTHER FACILITIES

The Department has constructed forest lodges in the bird sanctuary at Bharatpur, and the wild life sanctuaries at Kaziranga, Sasangir, Jaldapara and Dandeli. The India Tourism Development Corporation is managing the forest lodges at Bharatpur, Kaziranga, Sasangir and Kanha Kisli and those at Jaldapara and Dandeli are being run by the State Tourism Development Corporations. The construction work of a forest lodge at Betla and expansion of the existing lodge at Ranthambore has been taken up.

Facilities are also provided for viewing wild life, such as boats at Bharatpur bird sanctuary, elephants at Kaziranga, Kanha and Palamau and mini-buses in some of the wild life sanctuaries.

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At present, the Department of Tourism has on its approved list 166 travel agents, 30 tour operators (wholesalers), 132 tourist transport operators and 405 functioning hotels with 29,332 rooms.

The Department has also a list of approved shopping establishments and tourist guides at most of the important centres. The Department has also approved 205 hotel projects with a projected capacity of approximately 17,000 rooms.

INCENTIVES FOR TOURISTS

To promote tourist traffic, regulations relating to currency exchange controls and customs have been liberalised. While visas are required by visitors from most countries, Landing Permit is given to organised groups handled by approved travel agents and to tourists travelling on compassionate grounds.

Concessional tickets for domestic tourists are issued by the railways for round-trip journeys and circular tours. Special concessions are given to students. Indrail Pass facilities are available for foreign tourists and Indian residents abroad against payment in convertible currencies. The scheme—Discover India for travel on Indian Airlines domestic services with unlimited stopovers enroute is available to all persons permanently residing outside India, including Indians against payment in foreign exchange.

The Indian Railways and Rajasthan State Tourism Development Corporation have jointly organised 'Palace on Wheels' train in order to promote places of tourist interest in Rajasthan. In addition, a new fully air-conditioned train—The Great Indian Rover, has been introduced for promoting places of Buddhist interest. The train is also available for other tourist itineraries.

ITDC

The India Tourism Development Corporation Ltd. (ITDC), set up on 1 October 1966 as a composite undertaking, is now recognised as the major public sector effort for promotion and development of tourism in India. It now operates India's largest accommodation chain—the Ashok Group, comprising nine hotels in Delhi and one each at Aurangabad, Bangalore, Hassan, Mysore, Jammu, Khajuraho, Patna, Bhubaneswar, Madurai, Udaipur, Jaipur, Calcutta and Varanasi. It also runs 12 travellers lodges at various tourist destinations, four forest lodges—one each at Sasangir, Bharatpur, Kanha and Kaziranga and two beach resorts at Mamallapuram and Kovalam. This is complemented by a nationwide transport system operating from 19 units from Guwahati and Calcutta in the east to Bombay and Aurangabad in the west. Its fleet mix consists of 363 air-conditioned and deluxe coaches, limousines and tourist cars.

The Corporation is also providing catering services at Western Court and the State Guest House and Hospitality Centre at Hyderabad House in New Delhi besides managerial services to state-owned hotel Pineweed Ashok, Shillong.

ITDC's Cultural Wing runs three sound and light shows at Sabarmati Ashram, Ahmedabad; Red Fort, Delhi and Shalimar Garden, Srinagar besides organising entertainment programme for its hotels. Shopping opportunities are offered by its six duty free shops and one tax free shop in Bombay, Calcutta, Delhi, Madras, Tiruchirapally and Trivandrum. Ashok Travels and Tours—a travel agency started in 1981 has added yet another dimension to the multi-faceted activities of the Corporation.

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ITDC has, however, launched on a new strategy to enthuse the state governments and even the private sector in joint efforts which will on the one hand bring about faster and more wide-spread development of tourism infrastructure inspite of limited resources and, on the other, make it easier for more Indians to see their own country. Under this scheme, hotels and other infrastructure will be developed as joint venture schemes between ITDC, state governments, state tourism corporations and the private sector. Agreements for such joint ventures have been signed with eight state governments.

ITDC has a consultancy wing, which offers a complete package—from research and feasibility studies, to execution of entire projects for construction of hotels. Three overseas consultancy projects are now underway. They are a joint-venture hotel in Cyprus and two turn-key hotel projects at Mosul and Dokan in Iraq.

Turnover and Earning of Foreign Exchange

The ITDC earned a gross profit of Rs 6.85 crore and foreign exchange Rs 16.1 crore during 1981-82. Its turnover during the year was Rs 36.88 crore. The estimated turnover, gross profit and foreign exchange are Rs 47.23, Rs 8.37 and Rs 17 crore respectively during 1982-83.

Hotel Management Catering Technology and Applied Nutrition Institutes

Institutes of Hotel Management, Catering Technology and Applied Nutrition located at Delhi, Bombay, Calcutta and Madras are imparting training in specialised fields of hotel management and catering and applied nutrition. These Institutes turn out diploma holders for absorption at supervisory levels in the hotel and catering establishments. The Institutes are managed by an autonomous society. Besides imparting training for 3-year diploma courses in hotel management and catering technologies, these Institutes also train craftsmen in various trades of cookery, bakery, hotel reception, etc., and offer part-time *ad hoc* courses for meeting the needs of the industry. Six of the existing Food Craft Institutions are being upgraded to conduct diploma courses in hotel management and catering technology.

Foodcraft Institutes

Under the scheme of foodcraft institutes, 14 institutes were set up at various places. These institutes are administered by an autonomous society and conduct regular, part-time *ad hoc* courses in cookery, bakery, confectionary, restaurant and counter services, food preservation, etc. Six more such food craft institutes are being set up at different places in the country.

CIVIL AVIATION

On 31 December 1982, there were 685 aircraft with current certificate of registration and 238 with current certificate of airworthiness. During 1982, Indian aircraft flew on scheduled services 8.46 crore km, carried 79.61 lakh passengers and 1,60,598 tonnes of cargo and mail as against 8.8 crore km flown, 74.98 lakh passengers and 1,53,662 tonnes of cargo and mail in 1981.

Directorate General of Civil Aviation

The Directorate General of Civil Aviation is responsible for operation of civil airports (excluding 4 international airports), provision of air navigation services, air traffic services, rescue and fire fighting, security of civil aviation for the regularity and safety of aircraft operations, the registration of aircraft, certification of operators, air-

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INDIA
AIR LINKS

KM. 100 0 100 200

AFGHANISTAN
Kabul
PAKISTAN
Karachi
JAMMU AND KASHMIR
Srinagar
Leh
Jammu
HIMACHAL PRADESH
Kulu
Lahore
Amritsar
PUNJAB
Chandigarh
TIBET
CHINA
UTTAR PRADESH
DELHI
HARYANA
NEPAL
Kathmandu
RAJASTHAN
Jaipur
Agra
Lucknow
Gorakhpur
Jodhpur
Kanpur
Gwalior
Allahabad
Patna
Udaipur
Varanasi
BIHAR
Khajuraho
INDIA
Bhuj
GUJARAT
Ahmedabad
Jabalpur
Ranchi
WEST BENGAL
CALCUTTA
Indore
Jamnagar
Rajkot
Vadodara
Bhopal
MADHYA PRADESH
Porbandar
Bhavnagar
Keshod
Nagpur
Raipur
ORISSA
Bhubaneshwar
DIU (GD&D)
DAMAN (GD&D)
DNH
Aurangabad
BOMBAY
MAHARASHTRA
Pune
ANDHRA PRADESH
Hyderabad
Visakhapatnam
ARABIAN SEA
BAY OF BENGAL
YANAM (P)
Vijayawada
Belgaum
Dabolim
GOA (GD&D)
KARNATAKA
Tirupati
Mangalore
MADRAS
Bangalore
TAMIL NADU
PONDICHERRY
MAHE (P)
Coimbatore
KARAIKAL (P)
KERALA
Tiruchchirapalli
Cochin
Madurai
LAKSHADWEEP SEA
LAKSHADWEEP (INDIA)
Trivandrum
SRI LANKA
Male
Colombo
INDIAN OCEAN
KBK
ARUNACHAL PRADESH
Dibrugarh
Lilabari
Tezpur
Jorhat
Gauhati
ASSAM
Dimapur
NAGALAND
S BHUTAN
Bongaigaon
M
Silchar
Imphal
MANIPUR
BANGLADESH
Agartala
T
Dacca
MIZORAM
Chittagong
BURMA
NEW MOORE I. (INDIA)
ANDAMAN SEA
Port Blair
ANDAMAN AND NICOBAR ISLANDS (INDIA)
PYGMALION POINT (LA HENCHING)

— · — · — INTERNATIONAL BOUNDARY
– – – – – – STATE / UNION TERRITORY BOUNDARY
——— AIR ROUTES
DNH DADRA AND NAGAR HAVELI
(GD&D) GOA, DAMAN AND DIU
M MEGHALAYA
(P) PONDICHERRY
S SIKKIM
T TRIPURA

The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

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craft licencing of air crews and airports, air services agreement with foreign governments and air transport matters.

The development of indigenous components and designs for communication and navigational aids for the safety of aircraft operations and modifications, if any, required is undertaken by Radio Constructions and Development Units of Civil Aviation Department.

The type certifications of civil aircraft and aeronautical equipment, development testing of aircraft material and components, laboratory investigation of inservice failure, prototype development of light aircrafts, gliders, sail planes and glider launching winches is the concern of Research and Development Directorates of Civil Aviation Department.

IAAI

The International Airports Authority of India (IAAI) was set up in 1972 for the operation, management, planning and development of four international airports, namely Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam) and Madras (Meenambakkam). The Authority also develops and provides consultancy services in relation to planning and development of airports in India and abroad. It has in hand several foreign projects.

Airports

There were 87 aerodromes and 20 civil enclaves maintained by Civil Aviation Department as on 31 December 1982. In addition, there are many aerodromes controlled/owned/maintained by Ministry of Defence, state governments, public undertakings and private individuals and bodies.

Communication Stations

Ninety aeronautical communication stations provide 256 channels in aeronautical mobile service, 275 channels in aeronautical fixed service, 216 navigational facilities and 9 channels for ground to air voice broadcast.

Air Transport

The schedule air services to maintain domestic and international air transport are operated by two public sector corporations i.e. Indian Airlines and Air India both of which were formed in 1953. The fleet of Air India as on 31 October 1982 was 10 B-747 and 6 Boeing 707 and that of Indian Airlines was 10 Airbus, 25 B-737, 12 HS-748 and 8 Fokker Friendship F-27. To provide air transportation to inaccessible areas in India, *Vayudoot* are operating through ten civil aerodromes, three defence aerodromes, one state government aerodrome, and two licensed private aerodromes. The Vayudoot service started in 1981, is a third level feeder air service connecting important outlying stations with station on the Indian Airlines route.

Air Services Agreements

India has air services agreement with Afghanistan, Australia, Bahrain, Bangladesh, Belgium, Burma, Canada, Czechoslovakia, Arab Republic of Egypt, Ethiopia, Fiji, France, Federal Republic of Germany, Ghana, Hungary, Indonesia, Iran, Iraq, Italy, Japan, Kenya, Kuwait, Lebanon, Malaysia, Maldives, Mauritius, Nepal, Netherlands, Nigeria, Oman, Pakistan, Peoples Democratic Republic of Yemen, Phillipines, Poland, Qatar, Saudi Arabia, Singapore, Sri Lanka, Sweden, Switzerland, Syria, Seychelles, Tanzania, Thailand, United Arab Emirates, UK, USA, USSR, Yemen Arab Republic and Zambia.

Flying Clubs

There are 29 flying clubs managed privately at Hyderbad, Guwahati, Bombay, New Delhi, Vadodara, Trivandrum, Lucknow, Indore, Nagpur,

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Madras, Jalandhar, Coimbatore, Patiala, Amritsar, Banasthali Vidyapith, Hissar, Jamshedpur, Karnal, Raipur and Ludhiana. Five state government flying schools/training institutes are at Patna, Bangalore, Bhubaneswar, Calcutta and Jaipur.

Gliding Clubs There are nine gliding clubs at Ahmedabad, New Delhi, Pilani, Raipur, Nasik, Kanpur, Agra, Pinjore and Hyderabad. There are 7 gliding wings of the flying clubs at Amritsar, Jaipur, Patna, Jalandhar, Hissar, Patiala and Ludhiana. Besides, there is also a Government Gliding Centre, Pune which is run by the Department.

Training Centre The Civil Aviation Training Centre, Allahabad comprising of an aerodrome school and a communication school trains air traffic controllers (procedural and radar), communication, operational and maintenance personnel. Ground training to pilot trainees is also provided.

Fire Service Training Centre, Calcutta trains rescue and fire fighting personnel.

Aircraft Personnel Total number of aircrew licences current on 31 October 1982 was 5,140 of which 2,166 aircraft maintenance engineers, 280 aircraft radio maintenance engineers, 47 glider maintenance engineers and 302 flight engineer's were holding current licences.

METEOROLOGY

Meteorological and weather services are provided by the India Meteorological Department, which is one of the oldest scientific institution of the country having already celebrated its centenary. The Department has its headquarters in New Delhi and a functional office responsible for climatology and forecasting at Pune. There are five Regional Meteorological Centres at Bombay, Calcutta, Madras, Nagpur and New Delhi. The Department has also a Positional Astronomy Centre at Calcutta which compiles and publishes the *Indian Ephemeris* and *Air Almanac* in English and *Rashtriya Panchang* in English, Hindi and 9 other Indian languages.

Meteorological Centres have been set up at 11 state capitals at Ahmedabad, Bangalore, Bhopal, Bhubaneswar, Hyderabad, Jaipur, Lucknow, Patna, Srinagar, Trivandrum and Chandigarh for a better coordination with the concerned state governments. The Trivandrum Centre also maintains liaison with the Thumba Equatorial Rocket Launching Station for meteorological rocket probes of the upper atmosphere. To render service to agriculturists, farmers' weather bulletins are issued daily from the Regional Meteorological Centres. These bulletins are also being issued by the Meteorological Centres at state capitals pertaining to their regions and give district-wise forecast of weather and warnings against adverse weather. The Department has also started agrometeorological advisory services at Madras for Tamil Nadu, at Bombay for Maharashtra, at Calcutta for West Bengal, at New Delhi for Delhi Region and at Bhopal for Madhya Pradesh. From these Centres meteorological advisory bulletins are issued for the benefit of farmers once or twice a week in consultation with agricultural experts.

The Department issues warnings against heavy rainfall, strong winds and cyclonic weather for the general public and a number of

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private and public organisations including aviation, defence services, ships, ports, fishing corps, mountaineering expeditions and agriculturists. Flood Meteorological Offices are working at Ahmedabad, Bhubaneswar, Guwahati, Lucknow, Jalpaiguri, Patna, Hyderabad and Asansol in order to provide meteorological support to the Flood Forecasting Organizations of the Central Water Commission.

There are separate directorates of the Department to deal with agricultural meteorology, meteorological training, weather analysis over the Indian Ocean and Southern Hemisphere, instruments, hydrometeorology, satellite meteorology, aviation services, seismology, radiometeorology and meteorological telecommunication.

Cyclone Forecasts Cyclone warnings to ports and ships are issued by Bombay, Calcutta, Visakhapatnam, Bhubaneswar and Madras Offices. These are based on conventional meteorological observations from coastal and island observatories, ships in the Indian seas, coastal cyclone warning radars and cloud pictures received from weather satellites. Cyclone warning radar stations are located at Bombay, Goa, Calcutta, Madras, Karaikal, Paradeep and Visakapatnam and Machilipatnam. Weather satellite pictures are received through automatic picture transmission stations at Calcutta, Madras, Visakhapatnam, Bombay, Pune, New Delhi, Guwahati and Bhubaneswar. A Cyclone Warning and Research Centre at Madras investigates problems exclusively relating to tropical cyclones.

Tourists' Meteorological Service The Departments of Tourism at the centre and the states have access to the records of the Meteorological Department for providing weather information of interest to tourists.

Tourist Meteorological Offices are being set up in various parts of the country to issue weather forecasts for the tourists. One such centre has been set up at Gulmarg in Kashmir.

Exchange of Data Meteorological data are exchanged with many countries through high speed telecommunication channels. As part of India's cooperation with the World Weather Watch Programme of the World Meteorological Organization, a Regional Meteorological Centre and a Regional Telecommunication Hub function at New Delhi.

An Area Forecast Centre is also located in New Delhi under the International Civil Aviation Organisation (ICAO). The Centre prepares, analyses and prepares and forecast charts for surface and upper air for the area 40°N 30°E to 40°N 125°E and 0°N 30°E to 0°N 125°E daily which are broadcast over RTH for the benefit of civil aviation and neighbouring countries.

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21 COMMUNICATIONS

The history of modern postal system in India may be traced back to 1837 when postal services were thrown open to the public. The first postage stamp was issued in Karachi in 1852, though it was valid only in Sind. The postal department was set up in 1854, when about 700 post offices were already functioning in the country. The money order system was introduced in 1880. The post office savings bank was started in 1882. The railway mail service was started in 1907 and the air mail service in 1911.

Remarkable progress has been made in communication services since Independence. Between 1951 and 1981, the number of post offices and telegraph offices increased four-fold and that of telephones seventeen times. The subscriber trunk dialling service introduced in 1960, is now in operation in 198 cities. The overseas communication system connects India with almost all countries of the world.

The Posts and Telegraphs Board, which provides the postal and telecommunication services, is one of the largest employers in the country. The number of persons (including extra-departmental and industrial workers) employed by the Board as on 31 March 1982 was 9.01 lakh.

For operational purposes, the country is divided into 15 telecommunication circles, 16 postal circles, 17 posts and telegraphs civil circles, 5 posts and telegraphs electrical circles and 30 telephone districts.

Apart from these, there are units for specific purposes. The Ministry of Communications, through the Department of Posts and Telegraphs, also discharges certain agency functions. These are : collecting broadcast receiver licence fees, running post office savings banks, issuing national savings certificates and postal life insurance policies and selling units of the Unit Trust of India. It also sells application forms for examinations conducted by the Staff Selection Commission, income-tax forms and also passport application forms at the Head Post Offices in Delhi, Gujarat, Kerala, Maharashtra, North-Western and Tamil Nadu circles. In some of the metropolitan cities private car owners can also pay their vehicle tax through specified post offices.

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POSTAL SERVICES

The number of post offices on 31 December 1982 was 1,41,955—15,073 in urban areas and 1,26,882 in the rural areas. On an average, each post office served 4,817 persons and covered an area of 23.16 sq km. In addition, 73,540 villages in the country were being served through mobile counter service facilities. The number of letter boxes was 4,97,125 of which 4,22,531 were in the rural areas. More than 99 per cent of the villages had been provided daily mail delivery service by 31 March 1983.

Post Offices in Backward Areas

Under the revised policy for opening of post offices in rural areas made effective from 28 August 1978, norms have been liberalised for opening of post offices in backward, hilly and tribal areas. Previously, relaxations were applicable only to backward and hilly areas. A post office can now be opened in a gram panchayat village if there is no other post office within three kilometres. The proposed post office is expected to yield an income equal to at least 10 per cent of the estimated cost. In tribal/backward areas, other conditions remaining the same, the population should not be less than 1,000.

During the Sixth Plan, it is proposed to open 8,000 new rural post offices. Out of these, 63 per cent are to be opened in backward, hilly and tribal areas.

Conveyance of Mail

The traffic mail has increased enormously in the country due to industrialisation and increase in population as well as in rate of literacy. The mail is carried both by surface and air. For surface mail, various modes of conveyance such as rail, road, transport runners, boats, camels, horses and cycles are used. All the principal cities connected by air are served direct and other cities connected subsequently by surface.

Under the All Up Scheme, all inland letters, letter cards, post cards, registered letters and money orders are normally carried by air without surcharge. The total weight of airmail originating in 1981-82 from India for abroad was 28.53 lakh kg and domestic mail within the country 126.54 lakh kg.

Quick Mail Service

A new scheme called Quick Mail Service (QMS) was introduced in 1975. This service now covers all state capitals, headquarters of all union territories and important commercial towns. All unregistered articles bearing the Postal Index Number (PIN) of the destination and posted in special QMS letter boxes are covered by the scheme. Letters posted under the scheme are normally delivered next day. Within the states, the regional QMS connects most of the district headquarters to the state capitals. There are at present 45 national and 410 regional QMS centres in the country. They handle about 4 lakh articles daily.

Foreign Mail Arrangements

India is a member of the Universal Postal Union (UPU) since 1876. It has postal communication facilities with 166 countries of the world. Both surface and air routes are used to despatch and receive postal articles.

India is also a member of the Asian Pacific Postal Union (APPU), a restricted postal union of 19 countries within the framework of UPU since 1973. India joined this Union to facilitate and improve the postal relations between the member-countries of the region.

The frequency of air despatches varies from 1 to 10 a week depending on the quantum of mails and the availability of flights to the country concerned. India sends air mail despatches to 95 countries in the

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world. Frequency of surface despatches varies from daily despatches to the neighbouring countries to once a month and in a few cases to once a quarter or so, depending on the availability of sailings from Indian ports.

India is having money order service with 37 countries which brought about Rs 8.30 crore in foreign exchange during 1982.

Pin Code

For efficient and correct handling of the growing volume of mail, a numerical postal address code, known as the Postal Index Number (PIN), was introduced in 1972. The code has six digits which helps to identify and locate every departmental delivery post office excluding branch post offices. The first digit indicates the region, the second the sub-region and the third the sorting district, whereas the last three digits indicate a particular delivery post office in the areas served by the sorting district.

Post Office Savings Bank

The Post Office Savings Bank (POSB) was introduced in all the post offices throughout the country, except Bombay Presidency, from 1 April 1882. It completed 100 years of service to the people in 1982. With nearly 1.41 lakh post offices transacting savings business, the POSB runs several savings schemes and had an investment of about Rs 9,379 crore as on 31 March 1982. Nearly 90 per cent of the branches transacting the savings bank business are located in rural areas.

Postal Life Insurance

The number of postal life insurance policies in force as on 31 March 1982 was 9,29,997 for a total sum assured of Rs 590.37 crore. During 1981-82, 1,12,703 new policies were issued for a sum assured of Rs 106.94 crore. This shows an increase of about 20.05 per cent over the previous year, indicating the growing popularity of postal life insurance.

Philately

The Indian Posts and Telegraphs Department has been issuing special/commemorative postage stamps since 1931 on eminent personalities and important events. Since Independence, Indian philately has made great strides. Indian stamps depict a wide range of themes relating to the life and culture of the Indian people, their achievements in various fields, flora and fauna and also important national and international events. During 1982, 38 special/commemorative postage stamps were issued.

At present, a network of 37 philatelic bureaux and 136 philatelic counters operating in various parts of the country cater to the philatelists in the country. Besides, agents have been appointed in North America, Western Europe, Japan, Switzerland and Italy for sale of Indian stamps in those countries/regions.

The fourth India National Philatelic Exhibition (INPEX-82) was held in New Delhi from 30 December 1982 to 5 January 1983. More than 1,500 frames were displayed at the exhibition. Four hundred and nine participants from all over India exhibited their rare collections and 237 prizes in the form of medals were awarded in different groups. In addition, six exhibitions were held at state level. During 1982, the Department participated in two international philatelic exhibitions *viz.*, CANADA-82 held at Toronto from 20-24 May 1982 and INPEX-82 held at Brisbane, Australia, in October 1982.

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TELECOMMUNICATIONS SERVICES

There were 36,291 telegraph offices (including licensed telegraph offices working under railways and canal administration) as on 31 March 1982. During 1981-82, 2,117 new combined telegraph offices were opened in the country. During the Sixth Plan, it is proposed to open 15,000 more telegraph offices out of which about 3,000 will be in tribal areas.

Telex Service

The national telex service was opened in 1963. The first Devanagri telex was inaugurated in New Delhi in 1969. With the commissioning of teleprinter exchanges at important cities, printed messages can be sent and received directly from one subscriber to another in any part of the country. Telex service was available between 157 cities on 31 March 1982. These cities had an installed capacity of 23,927 lines, with 20,420 working telex connections.

Hindustan Teleprinters

The Hindustan Teleprinters Ltd., a public sector undertaking, was established at Madras in 1960 to manufacture teleprinters and ancillary equipment. The company produced 8,900 units of teleprinters and other accessories during 1982-83 . The company has started rolling out electric typewriters, assembled out of components imported from Italy.

Telephone Services

India had a 50-line telephone exchange in Calcutta as early as 1881-82, within five years after the invention of telephone. The first telephone exchange with automatic lines was installed at Shimla in 1913. At the time of Independence, there were 321 exchanges and 86,000 telephones. It was after 1951, however, that telephone services made rapid progress. The number of telephone exchanges had increased by more than fifteen times and that of telephones by about seventeen times as shown in table 21.1.

TABLE 21.1
TELEPHONE STATISTICS

(As on 1 April)

	1951	1961	1971	1981	1982
No. of Telephone Exchanges	540	1,374	3,967	7,893	8,521
No. of Telephones (in lakh)	1·68	4·63	13·00	28·32	29·81

The first indigenously developed computer-controlled electronic telephone exchange in Delhi is in operation since 8 November 1983.

The number of long distance public telephone call offices was 16,798 on 31 March 1982. The number of trunk calls made increased from 71 lakh in 1950-51 to 23.8 crore in 1981-82. The telephone revenue during 1981-82 came to Rs 667.80 crore.

STD Service

The subscriber trunk dialling service (STD) was first introduced in the country between Kanpur and Lucknow in 1960. It is now in operation in 198 cities. Telephone subscribers in Delhi, Bombay, Calcutta and Madras can now dial London and other cities in UK, directly without the help of an operator.

Fully automatic telex subscriber dialling through SPC type electronic telex exchanges at Bombay and New Delhi is available to 48 countries of the world.

'On Demand' Trunk Service

The 'on demand' trunk service was introduced for the first time on Bombay—Bangalore route in 1971. Since then, the service has been extended to 935 trunk routes in the country.

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Ship-to-Shore Service

Ship-to-shore service is available at Bombay, Calcutta and Madras, under which subscribers can have telephonic contacts with ships at sea within 750 km.

OYT Service

The 'own your telephone' scheme (OYT), introduced in 1949, now covers all the telephone systems in the country.

A new scheme called advance deposit scheme was launched with effect from 1 September 1975. Under the scheme, payment of advance deposit is necessary before demand for the telephone connection can be registered. The amount of deposit varies from Rs 1,000 to Rs 8,000 and is adjusted towards telephone charges as and when a telephone is sanctioned.

Telephone Manufacture

The Indian Telephone Industries Ltd (ITI), Bangalore is engaged in the production of wide range of telecommunications equipment, catering to the needs of P and T Department, railways, defence and private customers. The undertaking has its corporate office at Bangalore and five production units at Bangalore, Naini, Palghat, Rae Bareli and Srinagar.

During 1981-82, ITI manufactured 4.81 lakh telephone instruments besides other telecommunications equipment. The total sales and services of the company during the period amounted to Rs 157.26 crore. The exports of telecommunications equipment during the period amounted to Rs 1.27 crore.

TCIL

The Telecommunications Consultants India Ltd. (TCIL), is a Central Government enterprise, set up in 1978 under the Posts and Telegraphs Board for offering comprehensive services and technical know-how in all fields of telecommunications including computerisation of telecommunications services and setting up of data-links. TCIL's inland consultancy division is currently executing a number of projects in India for dedicated communication networks.

TCIL is currently executing projects in Kuwait, United Arab Emirates, Iraq, Nigeria, Jordan, Oman, Yeman Arab Republic and Mozambique.

Telecommunication Factories

Four departmental telecommunication factories, set up at Bombay, Calcutta, Jabalpur and Bhilai, functioning under Posts and Telegraphs Board, manufacture vital telecommunications equipment such as microwave towers, coin collecting boxes, pole line hardwares, trunk boards, manual boards, etc. During 1982-83, production was worth about Rs 26.57 crore.

Telecommunication Research Centre

The main functions of Telecommunication Research Centre (TRC), set up at New Delhi in 1956 directly under the P and T Board, are to carry out research in design and development of telecommunications equipment for indigenous manufacture at Indian Telephone Industries, and other state-owned electronics corporations and to give advice to the planning and operation branches of P and T on network improvements.

TRC in close co-operation with ITI units has been responsible for development of a wide variety of transmission and switching equipment which are working in the existing public telephone and telegraph network all over the country. The penta conta cross-bar system has been completely updated and Indianised to meet

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traffic patterns in the Indian environment. TRC has also conducted regular commercial trials of indigenously designed 1,000 lines stored programme control (SPC-1) electronic exchanges at New Delhi with provision of additional facilities such as abbreviated dialling and hot line. The satellite communication division of TRC has conducted a number of useful experiments with Symphonic and APPLE satellite. Development of a number of sub-systems for the earth stations to work with the INSAT-I system has also been carried out.

The present activities of TRC are directed towards development of digital transmission, digital switching, data modems, updating present version of SPC electronic mobile radio and paging system, optic fibre communication equipment, etc.

OVERSEAS COMMUNICATIONS

India's external telecommunications services are operated by the Overseas Communication Service (OCS), a department of the Ministry of Communications, with its headquarters in Bombay.

OCS operates from four international gateway centres located at Bombay, New Delhi, Calcutta and Madras, and provides overseas telephone, telex, telegraph, radio-photo and private leased teleprinter and voice-grade circuits. International television relays *via* satellite are also provided. Broadcast transmission and reception of newscasts on behalf of news agencies is another facility provided.

Almost 99 per cent of India's external telecommunications are handled by OCS *via INTELSAT* in the Indian Ocean region from the two OCS satellite earth stations at Arvi near Pune and Dehra Dun.

Submarine Cable and Troposcatter Links

A modern wideband submarine telephone cable link was established in 1981 between India (Madras) and Malaysia (Penang), providing essential diversity transmission medium to safeguard the security of India's external communications. A troposcatter communication link was established in 1981 between India and USSR.

SPC Electronic Gateway Exchanges

A major step in the development of the external telecommunications network was the commissioning of stored programme control (SPC) electronic gateway telephone exchanges at OCS gateway centres at Bombay, New Delhi and Madras in 1982. The availability of such modern large capacity exchanges has facilitated rapid improvement of international telephone service and expansion of International Subscriber Dialling (ISD) to many countries, which is at present available only to UK. SPC type electronic gateway telex exchanges already exist and ISD is available to 82 countries at present.

International Network

Through a network of satellite sumarine cable, high frequency radio and troposcatter communication facilities, telephone, telex, telegraph and a host of other services are provided practically to all parts of the world by direct and switched circuits. India has direct telephone links with 41 countries, telex links with 42 countries and telegraph links with 35 countries. Traffic was carried over 808 telex circuits, 632 telephone circuits and 49 telegraph circuits as on 1 January 1983.

Private Leased Circuits

OCS leases international voice grade circuits for telephone and data services and teleprinter circuits to private parties like banks, airlines, business houses, industries, government departments, press

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agencies, meteorological and civil aviation agencies for their bulk use. Fourteen such leased voice grade circuits and 128 leased teleprinter circuits were in service as on 1 January 1983.

Programme Transmission

International programme transmission (voice cast) service is another facility extensively used by foreign broadcasting organisations and news agencies for sending live reports for broadcast on their home radio and TV networks.

Press Bulletin Service

OCS provides leased teleprinter circuits at concessionary tariffs to press agencies (press bulletin service) in line with Central Government's policy of encouraging free flow of information particularly among developing countries of the third world. Twenty-one such PBS circuits were in service as on 1 January 1983. OCS also provides facilities for broadcast transmission and reception of news on behalf of news agencies. A multi-address press broadcast is transmitted on behalf of the Ministry of External Affairs, which is received by over 66 Indian consular posts around the world.

International TV relays

OCS provides international TV relay transmission and reception *via* INTELSAT at both Bombay and New Delhi gateways. The service is becoming increasingly popular particularly during international events and VIP visits.

Special Occasions

During the Ninth Asian Games in November/December 1982 and the Non-Aligned Summit Meeting (NAM) in March 1983 in New Delhi, OCS was called upon to provide overseas telecommunication facilities on an unprecedented scale. During the Games, 199 TV transmissions to 17 countries, totalling 9,668 minutes and 1,448 international telephone calls (including programme transmissions) for 8,239 minutes were handled in the span of nine days. Leased data, telephone and teleprinter circuits were also made available to many countries. Similarly, during NAM, 68 hot telephone lines were provided to 39 heads of states to the various parts of the world. There were 196 TV transmissions for 5,014 minutes and 320 programme transmissions for 12,087 minutes. On both occasions, public telephone, telex and telegraph facilities were augmented to handle very large volume of telephone and telex calls without delay.

OCS Development Plans

The establishment of a full-fledged gateway centre at Calcutta to serve the eastern region, with facilities comparable to the other three gateways, has top priority in OCS development plans. Plans for a wideband submarine telephone cable between Bombay and United Arab Emirates, establishment of a coast satellite earth station to work with INMARSAT satellite to provide reliable round-the-clock communications with ships at sea, are in an advanced stage.

WIRELESS PLANNING AND CO-ORDINATION

The Wireless Planning and Coordination Wing of the Ministry of Communications is responsible for all matters concerning the International Telecommunications Union, Geneva, a specialised UN agency and the allied organisations. It also functions as the radio regulatory authority for all radio usages in the country and in that capacity assigns radio frequencies, conducts examinations for radio amateurs and for certificates of proficiency for radio operators on

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board ships and aircraft, and issues operating licences to all official and non-official wireless users. Cases of radio interference are investigated and resolved through national and, if necessary, through international coordination. Problems arising from radio frequency usages and assignment of positions in the geostationary orbit for communication satellite systems are coordinated by this Wing both at national and international levels.

MONITORING ORGANISATIONS

The Monitoring Organisation of the Ministry of Communications has a network of monitoring stations set up to support the work of frequency management and implementation of radio regulations. Twenty such stations are functioning at Ahmedabad, Ajmer, Bangalore, Bombay, Calcutta, Darjeeling, Delhi, Dibrugarh, Goa, Gorakhpur, Hyderabad, Jalandhar, Madras, Mangalore, Nagpur, Ranchi, Shillong, Srinagar, Trivandrum and Visakhapatnam.

Four special units at Bombay, Calcutta, Delhi and Hyderabad investigate the quantum and sources of man-made radio noise, which affect radio communications with a view to deciding on remedial measures.

Ten inspection units at Ajmer, Bangalore, Bombay, Calcutta, Delhi, Hyderabad, Jalandhar, Madras, Nagpur and Shillong carry out region-wise inspection of licensed and authorised radio stations to ensure that they conform to regulatory stipulations.

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22 LABOUR

Labour policy in India derives its philosophy and content from the Directive Principles of State Policy as enshrined in the country's Constitution. The Directive Principles enjoin equal pay for equal work, provision of just and humane conditions of work and a living wage to all workers. Government's concern for the welfare of organised sector of workers in the country, particularly after Independence, is evident from the fact that a large number of Acts in the field of social security, safety and welfare, etc., have been enacted after 1947. While in the early years of industrialisation, labour policy was pre-occupied mainly with the organised sectors of the labour force, growing attention is now being paid to the interests of workers in the unorganised sector without detracting from the concern of Government for the improvement of the real earnings and working conditions of these in the organised sector. Some Acts and rules have also been framed for the unorganised sector. The Minimum Wages Act, 1948, has been made applicable to many categories of workers in this sector.

WORKING POPULATION

The working population of India in 1981 was estimated to be about 24.71 crore or 37.55 per cent of the total population of the country. In the organised sector of India's economy, the largest number of workers are employed in factories[1]. In 1979, the estimated average daily employment in working factories, for which figures are available, stood at 68.02 lakh[2]. Maharashtra had the largest number of factory

1. Under the Factories Act, 1948, a factory is defined as any premises including the precincts thereof where 10 or more workers are working or were working on any day of the preceding twelve months and in any part of which power is used for the manufacture. Where power is not used, the number of workers should be 20 or more.

A worker is defined in the Act as a person, employed directly or through any agency whether for wages or not, to any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process or in any other kind of work incidental to or connected with the manufacturing process or the subject of the manufacturing process.

2. Provisional.

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TABLE 22·1
DISTRIBUTION OF WORKING AND NON-WORKING POPULATION 1981 CENSUS[3]

(in lakh)

Category	Male		Female		Total	
	Number	Percentage share in total male population	Number	Percentage share in total female population	Number	Percentage share in total population
Working Population Total (A+B)	1,808	53·19	663	20.84	2,471	37·55
A. *Total Main Workers*	1,741	51·23	460	14·45	2,201	33·44
(i) Cultivators	762	22·42	152	4·77	914	13·89
(ii) Agricultural labourers	344	10·13	209	6·58	554	8·41
(iii) Household industry	64	1·89	24	0·75	88	1·34
(iv) Other workers	571	16·79	75	2·35	645	9·80
B. *Marginal Workers*	67	1·97	204	6·40	271	4·11
C. *Total Non-working Population*	1,591	46·80	2,519	79·15	4,110	62·45
D. *Total Population (A+B+C)*	3,399	100·00	3,182	100·00	6,581	100·00

1. Total may not necessarily tally due to rounding.
2. After including the total population of Jammu and Kashmir (60 lakh) and projected population of Assam (199 lakh), the population of India, arrives at 68·52 crore.
3. Excludes figures for Assam and Jammu and Kashmir.

TABLE 22·2
AVERAGE PER CAPITA ANNUAL EARNINGS OF FACTORY

(in Rs)

State/Union Territory	1975	1976	1977	1978	1979	1980[1]
Andhra Pradesh	2,824	3,731	3,654	3,625	4,884	3,625
Assam	2,627	3,504	3,982	4,673	4,717	4,505
Bihar	2,158	5,262	5,479	5,527	5,480	5,481
Gujarat	2,749	4,793	5,087	5,645	6,437	8,803
Haryana	3,371	4,931	6,088	5,664	6,248	5,320
Himachal Pradesh	2,745	4,395	4,238	3,636	4,691	4,745
Jammu and Kashmir	2,843	2,087	2,672	3,400	3,186	3,176
Karnataka	2,893	3,042	NA	NA	4,936	4,936
Kerala	2,947	5,253	4,856	4,936	5,696	5,696
Madhya Pradesh	3,942	6,378	6,205	7,391	7,065	7,964
Maharashtra	3,459	5,680	6,684	7,210	7,165	7,154
Orissa	4,194	5,417	5,684	6,119	7,414	6,728
Punjab	3,089	3,675	3,977	4,285	5,069	5,149
Rajasthan	3,325	4,954	5,312	5,811	6,382	5,811
Tamil Nadu	2,543	4,817	5,303	5,388	4,305	4,205
Tripura	2,453	2,251	1,394	3,630	5,007	3,001
Uttar Pradesh	3,054	4,486	5,030	5,418	5,983	5,418
West Bengal	3,966	5,840	6,357	6,970	7,283	7,967
Andaman and Nicobar Islands	3,300	2,831	1,086	3,620	4,602	2,827
Delhi	3,239	5,092	5,494	5,528	5,491	5,892
Goa, Daman and Diu	3,792	5,965	6,419	5,715	5,853	10,587
Pondicherry	2,615	4,879	6,135	5,473	5,978	7,945
ALL-INDIA	3,158	5,125	5,667	6,068	6,144	6,387

1. Provisional
2. The data given in the above table relate to workers earning less than Rs 400 per month up to 1975 and from 1976 onwards relate to workers earning less than Rs 1,000 per month.
3. The figures relating to factory workers exclude those for railway workshops and groups of industries seasonal in character consisting of food beverages, tobacco, gins and presses and construction but include defence installations.
4. NA means not available.

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workers (11,89,148) followed by West Bengal (8,87,253), Gujarat (6,39,131), Tamil Nadu (6,21,524) and Uttar Pradesh (5,33,952).

The average daily number of workers employed in all mines in 1978 was 7,41,777 (3,10,170 below ground, 2,06,121 open-cast working, 2,25,486 above ground). The corresponding figure for coal mines covered by the Mines Act, 1952 for 1978 was 4,80,592.

The distribution of working population, according to activity and sex, is given in table 22.1.

WAGES ALLOWANCES AND BONUS

The average per capita annual earnings of factory workers in different states and union territories are given in table 22.2.

Earnings

The variation in money earnings is shown in table 22.3.

TABLE 22·3 INDEX OF MONEY EARNINGS OF WORKERS

	Base 1961=100									Base 1976=100		
	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
General Index of Earnings	139	151	160	170	180	185	199	210	207	207	100	112

Regulations of Wages

The payment of wages is governed by the Payment of Wages Act, 1936 and the Minimum Wages Act, 1948, as amended from time to time. The Payment of Wages Act, 1936 and the Minimum Wages Act, 1948 extend to the whole of India except Sikkim and apply to persons employed in any factory including the establishments declared as factories under the Factories Act, 1948 and in any railway and in industrial establishments such as tramway or motor transport service, air transport service, dock, inland vessel, mine, quarry or oil-field, plantations, workshops in which articles are produced, and establishment in which any work relating to the construction, development or maintenance of buildings, roads, bridges or canals, etc., is being carried on.

The Act applies only to those who are in receipt of wages which average below Rs 1,600 per month.

Employers cannot withhold the wages earned by workers nor can they make any unauthorised deductions. Payments must be made before the expiry of a specified day after the last day of the wage period. Fines can be imposed for only those acts of omission which have been approved by the appropriate government and must not exceed an amount equal to three per cent of the wages payable. If the payment of wages is delayed or wrongful deductions are made, the workers or their trade unions can file a claim. The payment of overtime in scheduled employment is governed by the Minimum Wages Act, 1948.

Minimum Wages Act

The Minimum Wages, Act, 1948, empowers the Government to fix minimum wages of employees working in specified employments. It provides for review and revision of minimum wages already fixed after

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suitable intervals not exceeding five years. However, the Labour Ministers' Conference in July 1980 recommended that the revision of minimum wages should be made within two years or on a rise of 50 points in the Consumer Price Index, whichever is earlier.

Working Journalists Act

The Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955, regulates the conditions of service of working journalists and other persons employed in newspaper establishments. By a specific provision of this Act, the provisions of the Industrial Disputes Act with certain modifications have been applied to working journalists. The Act was amended by an ordinance on 26 July 1981 to provide for amplification of the definition of the term 'working journalist', so as to include part-time correspondents; and prevention of dismissal/discharge/retrenchment of newspaper employees (including part-time correspondents) by newspaper establishments in order to avoid payment of wages as revised by Central Government.

The amendment was given retrospective effect from 13 August 1980. The ordinance was subsequently replaced by an Act of Parliament which received President's assent on 18 September 1981.

Palekar Tribunals

The Central Government had appointed two tribunals under the provisions of the Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955 to recommend rates of wages in respect of working journalists and non-journalist newspaper employees in February 1979 headed by D. G. Palekar, retired judge of the Supreme Court. The tribunals submitted their recommendations to the Government on 13 August 1980.

Government had accepted the recommendations of the tribunals except those relating to the dearness allowance. A formula, with minor modifications and orders to this effect, was published by the Government. The dearness allowance formula recommended by the tribunals, was finally modified by the Government after giving the opportunity to everyone concerned to present their opinion. Orders notifying the revised rates of dearness allowance were published in the Gazette of India Extraordinary of 20 July 1981.

Contract Labour

The Contract Labour (Regulation and Abolition) Act, 1970, which became applicable to the whole of India in February 1971, provides for the regulation of employment of contract labour in certain establishments and for its abolition in certain circumstances. It also fixes responsibility on the principal employer for payment of wages in case of defaults.

Equal Remuneration

With a view to giving effect to the Constitutional provisions as well as to ensure enforcement of the ILO Convention No. 100, the Equal Remuneration Ordinance, 1975 was promulgated on 26 September 1975. The Ordinance was replaced by the Equal Remuneration Act, 1976. The Act provides for the payment of equal remuneration to men and women workers for the same work or work of similar nature and for the prevention of discrimination against women in matters of employment.

The Act has been enforced in several sectors like plantations (covered under the Plantations Labour Act, 1951), local authorities, Central and state governments, banks, educational institutions, mines

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hospitals, manufacture of textiles and textile products, wholesale and retail trade, construction, agriculture, air transport, industry, community, social and personal services, etc.

Bonded Labour

The bonded labour system has been abolished all over the country through the Bonded Labour System (Abolition) Act, 1976. Under the Act, every bonded labourer stands freed and discharged from any obligation to render any bonded labour.

Up to February 1983, 1,52,401 bonded labourers had been identified and freed. Of them 1,11,808 have been rehabilitated either under the Centrally-sponsored scheme or under the on-going schemes of the state governments.

Bonus

The right to a share in the profits of a concern was conferred on the workers under the Payment of Bonus Act, 1965. The Payment of Bonus (Second Amendment) Act, 1980 provides for payment of a minimum bonus of 8.33 per cent or Rs 100 whichever is higher, irrespective of whether there is allocable surplus or not. Bonus up to a maximum of 20 per cent of the annual wages is payable under this law in accordance with a prescribed formula. Bonus may be paid under a different formula linked to production/productivity in lieu of allocable surplus by mutual agreement between employers and the workers. Payment under any other formula would, however, be contrary to the law. The Act is not applicable to public sector enterprises except those operating in competition with similar undertakings in the private sector; it is also not applicable to institutions not working for profit like the Reserve Bank of India, Life Insurance Corporation of India and departmentally managed undertakings. All banks are, however covered.

Under Section 32(iv) of the Payment of Bonus Act, 1965, the employees employed by an establishment engaged in any industry carried on by or under the authority of any department of the Central Government or a state government or a local authority stand excluded from the purview of the Act. However, it has been decided to pay productivity linked bonus to the employees of the Railways, Post and Telegraph Department, certain defence establishments, and a few other such organisations. While schemes for payment of productivity linked bonus have been drawn up in the case of the Railways and Post and Telegraph Department, in the other cases schemes are yet to be evolved.

Occupational Wage Surveys

Occupational wage surveys are conducted by the Labour Bureau at periodic intervals to collect occupational data on wage rates and earnings in important manufacturing, mining and plantation industries in the country. The first and second surveys (both covering 44 industries) were conducted during 1958-59 and 1963-65, respectively. The third survey covered 81 industries, including all the 44 industries covered by the first two surveys in four phases spread over the period 1974-79. Brochures on dearness allowance and bonus in respect of all the 81 industries covered during the survey have been released. As regards main reports giving occupation-wise data relating to wage rates and earnings, the reports on plantation industries, mining industries, mica factories, tea factories and textile industries covered during the first two phases of the survey have been released. Similar reports in respect of engineering and other miscellaneous manufacturing Indus-

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tries covered during the third and fourth phases of the survey are being drafted.

INDUSTRIAL RELATIONS

The Industrial Disputes Act, 1947 is the principal central legislation which provides a machinery for the settlement of industrial disputes. In addition, the Code of Discipline (1958) and the Industrial Truce Resolution (1962) also help in the promotion and maintenance of good industrial relations.

Industrial Employment Standing Orders

Model Rules were framed by the Central Government under the Industrial Employment (Standing Orders) Act, 1946 for adoption by the industrial establishments employing one hundred or more workers to ensure industrial peace. An amendment of the Act in 1961 empowered the appropriate government to extend it to establishments employing less than hundred workers.

Another amendment in 1963 made the model standing orders, framed by the appropriate government, operative in all industrial establishments covered by them until the standing orders framed by the industrial establishments are certified. The Central Government by notification on 19 May 1982 extended the Industrial Employment (Standing Orders) Act to all industrial establishments under the control of the Central Government for which it is the appropriate Government and all mines, wherein fifty or more but less than hundred workers are employed.

The Act now applies to all establishments in Andhra Pradesh, Gujarat, Maharashtra and West Bengal employing fifty workers or more. In Assam, it covers establishments (except mines, quarries, oil-fields and railways) which employ ten workers or more. In Tamil Nadu all factories under the Factories Act, 1948 are covered.

Works Committees

Works Committees have been set up in industrial establishments employing one hundred or more workers. They comprise equal number of representatives of employers and workmen and aim at promoting measures for securing and preserving amity and good relations between the two parties. On 31 December 1982, Works Committees were functioning in 577 establishments.

Workers' Participation in Management

Worker's participation in management has been in vogue in this country for the last over thirty years in one form or the other. There is a provision for statutory bipartite Works Committees at the plant level under the Industrial Disputes Act. The scheme for voluntary joint management council at the plant level was tried for some years but it did not meet with much success. There is a provision for the appointment of worker-directors in the nationalised banks and a voluntary scheme for worker-directors in selected public undertakings where there is a duly recognised union and the labour-management relations are cordial.

In October 1975, Government introduced a voluntary scheme for workers' participation in management in manufacturing and mining industries employing 500 or more workers. This scheme was followed in January 1977, by another scheme for workers' participation in commercial and service organisations employing at least 100 persons; the latter scheme was, however, confined to public sector. The scheme provided for the establishment of shop councils and plant councils with distinct functions assigned to them. Workers' participation in

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management is one of the Directive Principles of State Policy enshrined in the Constitution.

Code of Discipline

The Code of Discipline, requiring employers and workers to utilise the existing machinery for the settlement of disputes and avoiding direct action was evolved at the Indian Labour Conference in 1958. It has been accepted by all the central organisations of employers and workers and several others.

The implementation organisations, at the centre and in the states, assist in settling disputes. The central organisations of employers and workers and public sector undertakings, except the AITUC, have also set up committees or cells to screen cases for dissuading their affiliate members from filing appeals in higher courts against the judgments of lower courts like industrial tribunal, labour courts, etc., in keeping with the letter and spirit of the code. A similar procedure for screening cases of appeals proposed to be filed by central undertakings has been in operation since 1964.

The Code is also applicable to public sector undertakings run as companies and corporations except those under the Ministry of Defence and Railways and also Ports and Docks. The Department of Defence Production has agreed to apply the Code, with some clarifications, to its public sector undertakings run as companies and corporations. The Code has also been applied, with certain modifications, to the insurance industry, the State Bank of India and the Reserve Bank of India.

Industrial Truce

To ensure industrial truce during emergency in the country, an Industrial Truce Resolution was adopted by the central organisations of employers and workers in 1962. It laid down that there would be no interruption or slowing down of production; on the other hand, the production will be maximised and defence effort promoted in all possible ways. A standing committee, set up in August 1963 to review the working of the Truce Resolution, has since been merged with the Central Implementation and Evaluation Committee.

National Arbitration Promotion Board

Both the Code of Discipline and Industrial Truce Resolution lay particular emphasis on the settlement of disputes through voluntary arbitration. Almost all the state governments and union territory administrations have either set up Arbitration Promotion Boards or made some other institutional arrangements to popularise voluntary arbitration.

Grievance Procedure

Under the Code of Discipline, managements have to establish a procedure to ensure full investigation of disputes to help in their settlement. The central industrial relations machinery continued to persuade managements to set up grievance procedure in undertakings falling in the central sphere.

Lay off and Retrenchment

In order to prevent avoidable hardships to the employees and to maintain higher tempo of production and productivity, the Industrial Disputes Act, 1947, has been amended to prevent lay-offs and retrenchments. Under the new Act, known as the Industrial Disputes (Amendment) Act, 1976, reasonable restrictions have been put on an employer's right to lay-off, retrenchment and closure. Now the employer has to seek prior approval of a specified authority or the appropriate government stating clearly in the application the reasons for laying off, retrenchment and closing of industrial establishment where

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300 or more workers are employed. The provisions with regard to closure in the Amendment Act are not operative as a result of the Supreme Court judgment in Excel Wear *versus* Union of India case 1978.

The position has now been set right by the Industrial Disputes (Amendment) Act, 1982, in which the relevant section has been redefined. The Amendment Act is yet to come into force.

Conciliation and Adjudication

The Central Industrial Relations Machinery, also known as the Central Chief Labour Commissioner's Organisation, is responsible for the prevention, investigation and settlement of industrial disputes under the Industrial Disputes Act, 1947. It also enforces some labour laws in the central sphere.

When industrial disputes cannot be resolved by mutual negotiations, the conciliation machinery steps in. It is compulsory for the conciliation officer to hold conciliation proceedings when an industrial dispute exists or is apprehended in a public utility service and a notice under Section 22 of the Industrial Disputes Act, 1947 has been received, but it is optional in the case of other industrial establishments.

The Industrial Disputes Act also provides for voluntary or compulsory adjudication of industrial disputes. Nine Industrial Tribunals-cum-Labour Courts have been set up to adjudicate disputes in the central sphere. Of these, three are at Dhanbad, two at Bombay and one each at Calcutta, Jabalpur, Delhi and Chandigarh. The states have their own tribunals and labour courts. One of the Industrial-cum-Labour Courts at Bombay functions as a National Tribunal.

National Labour Institute

The National Labour Institute was set up by the Union Government on 11 February 1972 under the Societies Registration Act. It became operative on 1 July 1974 as an autonomous institute. The education and training programmes of the Institute are primarily designed to benefit labour administrators of Central and state governments engaged in the fields of conciliation, labour welfare, enforcement of labour laws, etc., leaders and office-bearers of trade unions, organisers of rural poor, leaders of the agrarian workers' unions and managers and supervisors of public and private sector industries. One of the education programmes of the Institute is the "Rural Camp" which is organised in different states on request from the state governments. The participants are helped to develop appropriate issue-based rather than knowledge-based learning.

WORKERS' EDUCATION

The Central Board for Workers' Education was set up in 1958 with the main object of organising educational programmes designed to provide instructions to the workers in trade union consciousness and in the management of trade unions and allied matters. On a review of the working of the programme, the objectives of the Board have now been broadened. The present objects are mainly to equip all sections of workers for their intelligent participation in social and economic development of nation, to develop among them a greater understanding of the problems of their social and economic environment, to promote leadership from the rank and file of workers, and to enable trade union themselves to take over ultimately the functions of workers' education.

The Board is a society registered under the Societies Registration Act, 1860. It is a tripartite body comprising representatives of workers, employers and Government—both Central and states; University

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Grants Commission and Indian Adult Education Association are also represented. The Board has its headquarters at Nagpur with 43 regional centres and 18 sub-regional centres spread all over the country. The Board is financed entirely by the Central Government.

In March 1981, a Committee was set up to review the syllabi of workers' education programmes at various levels. Its recommendations have since been accepted by the Government and the Board has been asked to implement them. The new syllabi seek to give a new direction to workers' education programme. They are designed and directed towards bringing about attitudinal changes among the workers and to make them conscious of the paramountcy of the national interest. The contents of the syllabi have been changed with a view to give workers an integrated education about the country, about the industry in which they are employed, the philosophy and management of trade unions, industrial relations including participation in management, national integration and communal harmony, ways and means of improving their quality of life and upliftment of weaker sections of the society. The syllabi also seek to inculcate among the workers a sense of duty and social responsibility while making them aware of their rights. In the new curricula, population education, functional adult literacy and productivity educational occupy a place of special importance.

During 1982, the Board trained 3,318 worker-teachers and 1,16,888 workers in unit level classes. Residential facilities have also been provided at 13 regional centres for worker-teacher trainees and rural worker educators. 11,602 rural workers were trained in 204 five-day residential camps and 89 two-day village level camps. In addition, two-month full-time programme for rural worker-educators was organised at the residential centres and 166 rural worker-educators were trained.

The Board started the programme of training of workers from small scale industries/unorganised sector from September 1980. During 1982, 5,570 workers from small scale industries like handloom, *beedi*, carpet weaving, coir industry, khadi and rural industries, handicrafts, agriculture, etc., were trained under this programme.

The Board expanded its activities for spreading functional adult literacy among the workers. During 1982, 15,580 workers were trained in functional literacy classes of whom 4,597 were female workers.

In keeping with the Revised 20-Point Programme, the Board has evolved educational programmes to cater to the needs of the weaker sections of the community. These programmes are being conducted vigorously. The scheduled castes and scheduled tribes workers have been participating in various training programmes of the Board. Women have also been participating enthusiastically in the rural workers' education programmes.

The Board gives grant to the extent of 90 per cent of the total admissible expenditure to the trade unions for conducting short programmes of 1 to 14 days' duration. During 1982, the Board paid Rs 5.53 lakh as grant. During this period, the grantee organisations trained 20,975 workers.

After the declaration of 1982 as 'Productivity Year', the Board conducted 45 programmes/seminars on productivity through its regional offices in which 1,613 workers participated.

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TRADE UNIONS

The Trade Unions Act, 1926 provides for the registration of trade unions. Any seven or more members of a trade union may, by subscribing their names to the rules of the trade union and otherwise complying with the provisions of the Act with respect to registration, apply for registration of the trade union under the Trade Unions Act. The Act gives protection to registered trade unions in certain cases against civil or criminal action.

Table 22.4 shows the number and membership of the registered trade unions in India.

TABLE 22·4 REGISTERED TRADE UNIONS AND MEMBERSHIP

Particulars	Workers' unions			Employers' unions		
	1961-62	1978[1]	1979[1]	1961-62	1978[1]	1979[1]
Numbr of Unions on register . . .	11,416	31,721[2]	33,023[2]	198	486[2]	498[2]
Number of Unions submitting returns . .	6,954	8,239	6,655	133	112	80
Membership of Unions submitting returns (000's) .	3,960	6,022	4,661	18	19	21

1. Provisional and excludes Andhra Pradesh, Bihar, Jammu and Kashmir, Rajasthan and West Bengal for 1978 and Andhra Pradesh, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Nagaland, Rajasthan and West Bengal for 1979.

2. Estimated.

Many of these unions are affiliated to one or other of the following central organisations of workers : (i) The Indian National Trade Union Congress, (ii) The All India Trade Union Congress, (iii) The Hind Mazdoor Sabha, (iv) The United Trades Union Congress, (v) Centre of Indian Trade Unions, (vi) Bharatiya Mazdoor Sangh, (vii) National Labour Organisation, (viii) United Trades Union Congress (LS), (ix) National Front of Indian Trade Unions, and (x) Trade Union Co-ordination Centre.

Besides the affiliated unions and their federations, there are a large number of associations/federations, which have not joined any of the central workers' organisations. Some of these are : the All India Bank Employees' Association, the All India Bank Employees' Federation; the All India Insurance Employees' Association, the All India Defence Employees' Federation, the All India Railwaymen's Federation and the National Federation of Posts and Telegraphs Employees.

SOCIAL SECURITY

Workmen's Compensation Act

A beginning in social security in India was made when Workmen's Compensation Act was passed in 1923 providing for the payment of compensation to workmen and their families in case of industrial accidents and of certain occupational diseases arising out of and in the course of employment and resulting in death or disablement. The Act has prescribed separate scales of compensation for death, permanent total disablement and temporary disablement. It now covers workers employed in certain specified hazardous occupations and drawing wages not exceeding Rs 1,000 per month except those who are covered under the Employees State Insurance Act, 1948.

Maternity Benefits

The next step was taken up by the then Bombay Government when it enacted a law on maternity benefits in 1929. Soon after other states

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(known as provinces) enacted laws on the same subject. In order to bring uniformity in maternity benefits available under different state governments, Government of India passed the Maternity Benefit Act in 1961 replacing the state Acts on the subject.

The Maternity Benefit Act, 1961, regulates the employment of women in certain establishments for certain periods before and after child birth and provides for maternity and other benefits. The Act applies to mines, factories, circus industry and plantations, including any such establishments belonging to government, except the employees who are covered under the Employees State Insurance Act, 1948. It can be extended to other establishments by the state governments. There is no wage limit for coverage under the Act.

Employees State Insurance Scheme

The passing of the Employees State Insurance Act, 1948 marks the most important step in the provision of social security benefits. Till recently it covered non-seasonal factories using power and employing 20 or more persons but now it is being gradually extended by the state governments to smaller factories, hotels, restaurants, shops, cinemas, etc. employing 20 or more persons. It covers employees drawing wages not exceeding Rs 1,000 per month.

The Act provides for medical care in kind and cash, benefits of maternity, employment injury and pension for dependents on the death of a worker because of injury. Full medical care including hospitalisation is also being progressively made available to the members of the family of the insured persons.

As on 31 December 1982 there were 83 ESI hospitals and 39 annexes with 17,665 beds and 1,117 dispensaries under the scheme. The number of employees covered was about 64.29 lakh.

Employees' Provident Funds

Retirement benefits are available to the employees under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952. As on 30 April 1983, it covered 172 industries/classes of establishments, employing 20 or more persons all over India, except Jammu and Kashmir. The Act does not apply to establishments registered under the Co-operative Societies Act, 1912, and employing less than 50 persons and working without the aid of power. The scheme is at present applicable to those drawing wages up to Rs 1,600 per month.

The employers contribute 6¼ per cent of the basic wages and dearness allowances including the cash value of food concessions and retaining allowance payable to the employees. The employees make a matching contribution. The Government has enhanced the rate of contribution to 8 per cent in the case of 95 industries employing 50 or more persons.

At the end of 31 March 1982, the subscribers numbered 115.64 lakh. The receipt in provident fund, including interest earned, totalled Rs 8,554.26 crore, while the amount refunded was Rs 3,780.60 crore.

Death Relief

A Death Relief Fund was set up under the Employees' Provident Fund Scheme in January 1964, with a view to afford financial assistance to the nominees of heirs of deceased members of unexempted establishments whose pay (including basic pay, DA, etc.) does not exceed Rs 1,000 per month at the time of death. The quantum of benefit is restricted to the amount by which amount payable on account of Provident Fund falls short of Rs 1,250.

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Employees' Deposit Linked Insurance Scheme

Another important social security measure, the Employees' Deposit Linked Insurance Scheme, 1976 was introduced for the members of the Employees' Provident Fund and the exempted Provident Funds with effect from 1 August 1976. On the death of a member, the person entitled to receive the provident fund accumulations would be paid an additional amount equal to the average balance in the provident fund account of the deceased during the preceding three years, if such average balance was not below Rs 1,000 during the said period. The maximum amount of benefit payable, under the scheme, is Rs 10,000 and the employees do not have to make any contribution for it.

As on 31 March 1982, 34,444 claims were settled and a sum of Rs 20.51 crore paid to the claimants.

Family Pension

To provide long-term financial security to the families of industrial employees in the event of their premature death, the Employees' Family Pension Scheme was introduced from 1 March 1971 by diverting a portion of the employers' and employees' contribution to the Employees' Provident Funds with an additional contribution by the Central Government. The amount of family pension payable ranges from a minimum of Rs 60 to maximum of Rs 320 per month, depending on the period of membership of the fund.

Gratuity Scheme

The Payment of Gratuity Act, 1972 is applicable to employees in factories, mines, oil-fields, plantations, ports, railways, motor transport undertakings, companies, shops and other establishments under the Act. The employees drawing wages not exceeding Rs 1,000 per month are entitled to payment of gratuity at the rate of 15 days' wages for each completed year of service, subject to a maximum of 20 months' wages. However, in the case of seasonal establishments, the gratuity is payable at the rate of 7 days' wages for each season. The Act does not affect the right of an employee to receive better terms of gratuity under any award or agreement or contract with the employer.

WORKING CONDITIONS AND WELFARE

Working conditions in factories are regulated by the Factories Act, 1948, which prescribes a 48-hour week for adult workers and forbids the employment of children under 14 in any factory. Minimum standards of lighting, ventilation, safety, health and welfare services which the employers must provide in their factories have also been laid down. Factories employing over 30 women workers are required to provide a creche for their children. Shelters, rest rooms and lunch rooms are to be provided by factories employing over 150 workers. Factories with more than 250 employees have to provide canteens for their workers. Factories employing 500 or more workers have to appoint welfare officers to look after the welfare of the workers. Amenities have also been provided in mines and plantations covered by the Mines Act, 1952, and the Plantations Labour Act, 1951; and the Bidi and Cigar Workers (Conditions of Employment) Act, 1966, Contact Labour (Regulation and Abolition) Act, 1970, Motor Transport Workers' Act 1961, etc.

To provide housing, medical, recreational and other welfare facilities on a planned basis, statutory welfare funds have been created for the benefit of workers in coal, mica, iron ore, manganese ore, limestone and dolomite mines and in the *beedi* industry. The welfare

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facilities provided under these funds include provision of housing, hospitals, medical, educational and recreational facilities.

The finances for the funds are raised through the levy of a cess an *ad valorem* cess as customs duty on mica exports, a cess as a duty on export of iron ore and manganese ore and duty of excise on internal consumption and a cess on the limestone and dolomite consumed by the iron ore and steel plants and cement and other factories. The welfare fund for *beedi* workers is being financed by levy of cess on manufactured *beedies*.

Acts under which funds have been established are : The Iron Ore Mines and Manganese Ore Mines Labour Welfare Cess Act, 1976; Iron Ore Mines and Manganese Ore Mines Labour Welfare Fund Act, 1976; the Limestone and Dolomite Mines Labour Welfare Fund Act, 1972; Coal Mines Labour Welfare Funds; the Mica Mines Labour Welfare Fund Act, 1946; and the Beedi Workers' Welfare Cess (Amendment) Act, 1981.

Plantation Labour

The Plantations Labour Act, 1951 provides for the welfare of plantation labour and regulates the conditions of work in plantations. The Act is administered by the state governments. The Act was passed in 1951 but was brought into force from 1 April 1954. Even from this date only such sections of the Act were given effect to which could be enforced without framing of rules. The concerned state governments published their rules under the Act from September 1955 to April 1959, on the lines of model rules recommended by the Ministry of Labour.

With a view to removing some difficulties that have been experienced in the working of the Plantations Labour Act, 1951 and for enlarging the scope of the Act, the Plantations Labour (Amendment) Act, 1981 was passed by Parliament and has been brought into force with effect from the 26 January 1982.

The Act applies to whole of India except Jammu and Kashmir and covers all tea, coffee, rubber, cinchona and cardamom plantations measuring 5 hectares or more and employing 15 or more workers. Workers drawing wages up to Rs 750 per month are now covered under the Act. The Act now provides for compulsory registration of plantations. It excludes medical officers, persons employed in managerial capacity and persons temporarily employed in construction, development or maintenance of building, etc.

The state governments who administer the Act take steps to ensure that the statutory obligations are fulfilled. Bihar, Himachal Pradesh, Karnataka, Kerala and Uttar Pradesh and the union territory of Andaman and Nicobar Islands have reported that the Act is being enforced satisfactorily.

Under the Act, all plantations provide housing accommodation to their resident workers and their families and also to those residing outside who have put in six months of continuous service and who express a desire in writing to reside in the plantations. The plantations also maintain hospitals or dispensaries for them. Some of the plantations also run elementary schools for the education of the workers' children. Training in useful handicrafts, such as tailoring, knitting, weaving and basket-making and recreational facilities are provided in some of the tea estate centres with the help of the Tea Board.

WORKERS SAFETY

Under the Constitution, safety, health and welfare of workers employed in mines are the concern of the Central Government. The matter is

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regulated by the Mines Act, 1952. The Act applies to mines of all types including mines of atomic minerals and oil fields—both on and off shore. As on 30 September 1982, 535 coal mines and 4,833 non-coal mines were working in the country and coming under the purview of the Mines Act. Nearly 7.50 lakh workers are employed in these mines.

The Directorate General of Mines Safety has been entrusted with the function of enforcing the provisions of the Mines Act, 1952, and the rules and regulations framed thereunder. The National Council for Safety in Mines is a registered society which is engaged in all types of safety activities.

The Dock Workers (Safety, Health and Welfare) Scheme, 1961 framed under the Dock Workers (Regulation of Employment) Act, 1948 provides for measures for ensuring the health and welfare of dock workers and safety measures for those workers who are not covered under the Indian Dock Labourers Regulations, 1948.

The Factories Act, 1948 contains provisions to ensure safety measures and to promote the health and welfare in factories. The Act and the Rules framed thereunder are administered by the state government through their factory inspectorates.

The Directorate General, Factory Advice Service and Labour Institutes, Bombay function as an integral body to advise Government, industry and other interests concerned with matters relating to safety, health and welfare of industrial workers.

National Safety Council

The National Safety Council was set up in 1966 to promote safety measures to prevent accidents, minimise dangers and mitigate human sufferings, to conduct programmes and lectures and conferences on safety, to conduct educational campaigns, to arouse consciousness amongst employers and workers, to collect educational and information data, etc. The affairs of the Council are vested in the Governing Body of a Board of Governors. Employers and workers, both are represented on the Board.

As on 31 December 1982, the Council's membership of 1,352, consisted of 1,184 corporate members, 119 individual members, 28 trade union members and 21 life members.

National Safety Awards

To give recognition to good safety performance on the part of industrial undertakings and to stimulate and maintain the interest of both the managements and the workers in accident prevention programmes, the Government instituted in 1965 the National Safety Awards. The award schemes were instituted for factories registered under the Factories Act, 1948, but from 1971, separate schemes for factories not covered under the Act and for ports have also been introduced. At present ten schemes are in operation.

Shram Vir Awards

Shram Vir Awards were instituted in 1965 for workers in factories, mines, plantations and docks. They are given in recognition of meritorious performance—such as suggestions leading to higher productivity or economy or greater efficiency.

EMPLOYMENT

Employment in the organised sector, i.e. in all the public sector concerns and non-agricultural establishments employing ten or more

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persons in the private sector increased from 228.8 lakh in March 1981 to 234.8 lakh (provisional) in March 1982, an increase of 2.6 per cent as compared to 2.5 per cent during 1980-81. The increases in public and private sectors employment during 1981-82 were 2.5 per cent and 2.8 per cent respectively as compared to 2.7 per cent and 2.2 per cent in the preceding years.

The Sixth Plan document presents estimates of unemployment in March 1980 on the basis of provisional results of the 32nd round of NSSO. These estimates are based on three concepts namely "usual status", "weekly status" and "daily status". Usual status unemployment refers to long-term unemployment. According to usual status approach, the extent of unemployment by March 1980 was estimated at 1.14 crore persons in the age group 15 and above. Weekly status unemployment refers to the average number of persons who did not find even an hour of work during the survey week or who were searching for work or were available for work. The number of such persons in March 1980 was 1.16 crore in the age group 15 and above. This estimate of weekly unemployment does not give a complete picture of employment situation as millions of workers do not get regular work even for a whole week. They get some work on some days and are available for work on other days even during the same week. Therefore, unemployed days rather than unemployed persons are counted to arrive at the estimate of average daily employment. The magnitude of average "daily unemployment" in March 1980 in the age group 15 and above turned out to be 1.98 crore.

National Employment Service

The National Employment Service (NES), started in 1945, consists of a network of employment exchanges manned by trained personnel. The exchanges assist all employment seekers, including the physically handicapped, ex-Servicemen, scheduled castes and scheduled tribes, university *alumni* and professional and executive personnel. The NES also carries out other functions, such as vocational guidance and employment counselling for better utilisation of human resources, the collection and dissemination of employment market information and conducting studies in the field of employment and occupational research, which provide the basic data for framing employment and manpower policies.

Under the Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, it is obligatory for all establishments in the public sector and such of those non-agricultural establishments in the private sector as are employing 25 or more workers to notify their vacancies (with certain exemptions) to the employment exchange and supply periodic information as prescribed in the Act and in the Rules made thereunder.

The number of employment exchanges in the country on 31 December 1982 was 619 excluding 73 university employment information and guidance bureaux (UEIGB). Table 22.5 gives figures relating to the activities of the exchanges.

Administration

The day-to-day administrative control over the employment exchanges was transferred to the state governments in November 1956. From April 1969, the states were also made financially responsible for the manpower and employment schemes. The role of the Central Government is limited to policy-making, coordination of procedures and

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standards, and the development of various programmes on an all-India basis and training.

TABLE 22.5
ACTIVITIES OF EMPLOYMENT EXCHANGES

Year	No. of Exchanges[1]	No. of Registrations (in thousand)	No. of Applicants placed in Employment (in thousand)	No. of Applicants on the Live Register (in thousand)	No. of Vacancies Notified (In thousand)
1956 . . .	143	1,670·0	189·9	758·5	296·6
1961 . . .	325	3,230·3	404·7	1,832·7	708·4
1966 . . .	396	3,871·2	507·3	2,622·5	852·5
1971 . . .	437	5,129·9	507·0	5,099·9	813·6
1976 . . .	517	5,619·4	496·8	9,784·3	845·6
1981 . . .	592	6,276·9	504·1	17,838·1	896·8
1982 . . .	619	5,862·9	473·4	19,753·0	819·9

1. Includes 16 professional and executive employment offices and excludes 73 university employment information and guidance bureaux.

Training and Research

The Central Institute for Research and Training in Employment Service (CIRTES) is functioning under the Directorate General of Employment and Training (DGET) in the Ministry of Labour since 1964 and performs these functions : (i) assessment of training needs of personnel of NES, (ii) planning and conducting training courses for employment service personnel from states, (iii) conducting research into problems concerning the activities of the employment service, (iv) compiling and publishing career literature and producing audio-visual aids for use in vocational guidance and career advising programmes.

The Institute arranges tailor-made courses for trainee officers deputed from various countries under the Colombo Plan, ILO Fellowships Programme, Special Commonwealth African Assistance Programme, etc. CIRTES has also been arranging seminars and training courses for officers in the Asian region in collaboration with Asian and Pracific Project for Labour Administration (APPLA).

Vocational Guidance

Vocational guidance and employment counselling services are provided to the youth (applicants without any work experience) and adults (with specific work experience). During 1982, vocational guidance units were functioning at 264 employment exchanges, apart from 73 UEIGB.

In order to divert educated youth to channels of gainful employment, vocational guidance and career advising programme of the DGET have been expanded and streamlined. The Career Study Centre at the CIRTES provides career literature for the occupational orientation of the youth and other guidance seekers.

Exchanges for Physically Handicapped

There are 20 special exchanges for the physically handicapped. They are functioning at Ahmedabad, Bangalore, Bhubaneswar, Bombay, Calcutta, Chandigarh (one for Punjab and another for Haryana), Delhi, Hyderabad, Jabalpur, Jaipur, Kanpur, Madras, Patna, Shimla, Guwahati, Trivandrum, Vadodara, Surat, Raikot, Agartala and Imphal.

Thirteen Vocational Rehabilitation Centres for the physically handicapped are functioning at Ahmadabad, Bangalore, Bombay, Calcutta, Delhi, Hyderabad, Jabalpur, Kanpur, Ludhiana, Madras, Trivandrum, Sitamarhi and Guwahati. One more centre is being set up at Bhubaneswar.

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SC/ST Job Seekers

Eleven coaching-cum-guidance centres for scheduled castes/scheduled tribes, functioning at Delhi, Madras, Kanpur, Jaipur, Hyderabad, Trivandurm, Surat, Jabalpur, Ranchi, Calcutta and Aizwal provide confidence building training to job seekers belonging to scheduled castes and scheduled tribes. Six more centres, one each at Bangalore, Hissar, Nagpur, Rourkela, Guwahati and Imphal, are likely to be set up.

TRAINING

In an endeavour to build up the career of young persons in their adolescence, the DGET has evolved various training programmes. These are formulated within the national framework as far as possible and also in collaboration with foreign countries.

Craftsmen's Training

Industrial training institutes were set up all over the country to impart skills in 32 engineering and 26 non-engineering trades to youngmen and women in the age group of 15—25. At present, 1,084 such institutes with a total seating capacity of about 2,23,000 are providing craftsmen training in the country. The duration of the courses varies from one to two years for engineering trades, but is one year for all non-engineering trades. The educational qualification for admission in most of the trades is eighth standard or two classes below the matriculation or its equivalent. Besides 58 trades, the state governments and union territories have introduced training in additional trades to meet the requirements of the new industries established in their areas.

The industrial training institutes train other ranks in the Indian army also to facilitate their rehabilitation in civil life on their release or retirement from service.

To promote the efficiency of craftsman trainees, the DGET conducts aptitude tests which are applied for the selection of craftsman trainees in engineering trades. The aptitude testing programme has also been extended to industries in different regions for selecting suitable candidates as apprentices under the Apprentices Act, 1961.

With the objective to reorganise the craftsman training programme by introduction of a broad-based basic training followed by modular training, as recommended by the Committee of Experts on Training, four Model Industrial Training Institutes, one each at Haldwani, Calicut, Choudwar (Orissa) and Jodhpur have been set up during 1981 and 1982.

Craft Instructors Training

Six central training institutes were established at Bombay, Calcutta, Hyderabad, Kanpur, Ludhiana and Madras to train craft instructors required by the industrial traing establishments. Out of these six institutes, except the one located at Madras, the other five have been upgraded as Advanced Training Institutes during 1982 under Phase II of the Advanced Vocational Training System. The six institutes with an admission capacity of 1,142 impart training in a number of trades. Facilities for training of instructors have also been provided in chemical group of trades at the Bombay institute, and in hotel-catering at the Hyderabad institute. Facilities for training in printing, weaving and farm mechanics trades are provided at institutes in Kanpur, Bombay and Ludhiana respectively. A model training institute is attached to each of these institutes which provides practical training for instructors.

The project Advanced Vocational Training System was launched for training for highly skilled workers and technicians in a variety of

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advanced and sophisticated skills not available from other vocational training programmes. The system was introduced in the Advanced Training Institutes (ATI) located at Bombay, Calcutta, Hyderabad, Kanpur, Ludhiana and Madras and 16 selected Industrial Training Institutes located at Ambattur, Bangalore, Vadodara, Dhanbad, Durgapur, Faridabad, Guwahati, Jabalpur, Jammu, Jodhpur, Kalamassery, Meerut, Patiala, Pune, Rae Bareli and Visakhapatnam. These institutes were modernised and developed into Model Training Institutes to conduct various advanced courses under the scheme. The Advanced Training Institute at Madras is functioning as the apex and the five Advanced Training Institutes (formerly Central Training Institutes) where the system has been introduced, serve as regional institutes for the country as a whole.

Advanced Training for Electronics and Process Instrumentation

An advanced training institute for electronics and process instrumentation was established at Hyderabad in 1974 to train highly skilled technicians in fields such as domestic/industrial/medical/electronics and process instrumentation. Another institute, second of its kind, had been set up at Dehra Dun in December 1981 to meet the growing demand of highly skilled personnel in these fields.

Foreman Training

An institute to train foremen was established in Bangalore in 1971. It trains existing and potential shop foremen and supervisors in theoretical and managerial skills and workers from industry in advanced technical skills. The facilities generated at this Institute were made available through the Advanced Training Institute, Bombay, also. To meet the increasing demand for trained foremen, Central Government established the second Foremen Training Institute at Jamshedpur in 1982. This Institute will conduct programmes on lines similar to the Institute at Bangalore, with additional facilities in the field of foundry technology.

Apprenticeship Training

The Apprentices Act, 1961, makes it obligatory for employers in specified industries to engage apprentices. The training consists of basic training followed by on-the-job or shopfloor training in accordance with standards prescribed by the Government in consultation with the Central Apprenticeship Council. So far, 217 industries and 138 trades have been brought under the Act. The Apprentices (Amendment) Act, 1973 provides for apprenticeship training of engineering graduates and diploma holders.

About 15,000 establishments are implementing the Act. Nearly 1.33 lakh trade apprentices were under training in various trades by the end of April 1983. Seventy-one subject fields in engineering technology have been designated and about 13,000 graduates and diploma holders/apprentices were under training in the various subject fields by the end of April 1983.

Part-time Training to Industrial Workers

Alongwith the expansion of facilities for the training of craftsmen in institutes and through the apprenticeship programme, evening classes were organised to improve the standards of industrial workers who enter the industry without any systematic training.

Industrial workers, irrespective of their age, but possessing two years' workshop experience in a particular trade and sponsored by their employers, are eligible for admission to this course. The period of training is two years. Courses are conducted in Central Training

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Institute, Madras and 5 ATI's at Bombay, Calcutta, Ludhiana, Kanpur, and Hyderabad and in 32 Industrial Training Institutes.

Vocational Training Research

A Central Staff Training and Research Institute was set up at Calcutta in 1970 for developing indigenous training techniques. The Institute conducts training programmes for officers and staff of the Central and state governments as well as from industry who control, regulate and direct training programmes. It also carries out research in trades and training techniques, prepares training aids, and advises industry on industrial training methods.

Vocational Training for Women

The Central Training Institute for Women at New Delhi was upgraded into a National Vocational Training Institute for Women. The Institute provides instructor training, basic training and advanced training in selected trades particularly suitable for women. Two Regional Vocational Training Institutes for Women were also set up at Bombay and Bangalore to provide basic and advanced training in trades suitable for women.

RURAL WORKERS

Both the Central and state governments have launched various schemes to ensure that the socio-economic gains of development are extended to the rural workers. For this purpose, steps are being taken to speedily implement schemes for health care, family welfare, housing, rural credit, education, etc., of the rural poor, of whom the agricultural workers form the majority.

According to 1981 Census the number of agricultural workers in the country is about 5.54 crore, as against 4.75 crore in 1971.

Scheme to Organise Rural Workers

The studies made in the past have revealed that the benefits of various statutory and non-statutory schemes do not generally reach the workers in rural areas due primarily to the lack of organisation and awareness among the rural workers. In order to overcome this situation, a scheme to organise rural workers by appointing honorary organisers, at block-level, has been instituted in the Sixth Plan, with a provision of Rs 65 lakh. The functions of the organisers are briefly to educate the workers on their rights and duties, stress the value of workers' organisation and help them to organise trade unions and other forms of organisation as may be considered necessary. To begin, the scheme is being implemented in 415 blocks in Andhra Pradesh, Bihar, Gujarat, Maharashtra, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh.

The Minimum Wages Act, 1948, and the Trade Unions Act, 1926, are applicable to agricultural labour. Agricultural farms run on commercial lines are also covered by the Industrial Disputes Act, 1947. The Employees' Provident Fund and Miscellaneous Provisions Act, 1952, is applicable to agricultural labour engaged in specified plantations. Workers employed in farming by tractor or other mechanical power or by electricity are already covered by the Workmen's Compensation Act, 1923.

Of all the existing labour laws applicable to agricultural workers, Minimum Wages Act, 1948 is the most important one. It provides for the machinery for fixing wages and makes certain other provisions relating to hours of work, overtime payment and rest day.

The Minimum Wages Act provides for revision of minimum wages in a period not exceeding 5 years. However, at the 31st session of the State Labour Ministers' Conference in July 1980, it was decided

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that minimum rates of wages should be reviewed and revised if necessary, once in two years or on a rise of 50 points in the Consumer Price Index Numbers, whichever is earlier. In pursuance of this decision, all the states and administrations except Jammu and Kashmir, Sikkim, Arunachal Pradesh, Mizoram, Lakshadweep have fixed/revised minimum rates of wages in respect of agricultural labourers. Whereas Minimum Wages Act is yet to be extended to Sikkim, fixation of minimum wages for agricultural workers is under consideration in Jammu and Kashmir. They have undertaken a survey in this regard. In Arunachal Pradesh, minimum wages have been fixed under the executive orders of the Administration. In Mizoram, there is no organised agricultural labour and in Lakshadweep also, there are no agricultural workers.

Review and enforcement of minimum wages in respect of agricultural labourers is one of the items of the Revised 20-Point Programme. As a result of this, various measures have been taken to secure effective implementation of the Minimum Wages Act with particular reference to the employment in agriculture. A Monitoring Unit has been set up in the Department of Labour to monitor the progress of implementation in the states/union territories every quarter. Minimum wages under the employment in agriculture were last revised by the Central Government in August 1982 in the range of Rs 6.75 to Rs 10 per day for unskilled workers, according to area. This revision was based on the 12-Monthly Average Consumer Price Index Number of 432 as it existed at the end of October 1981. In February 1983, the Average Index had reached 482 points. As such, a further wage revision has become due in accordance with the recommendations of the State Labour Minister's Conference. The Ministry has already initiated necessary action in this behalf.

A Central Standing Committee on Rural Unorganised Labour has been constituted to advise the Government on administrative and legislative measures considered necessary to ameliorate the socio-economic conditions of unorganised rural labour.

The Government of India has ratified the International Labour Organisation Convention Number 141. It requires the ratifying countries to facilitate the establishment and growth, on voluntary basis of strong and independent organisations of rural workers.

A proposal for enactment of a central legislation for agricultural workers was under consideration for some time. But on account of the practical difficulties in the implementation of a uniform legislation owing to diversity of conditions prevailing in different states, it has been decided that state government may enact suitable legislation to regulate the working conditions of agricultural workers and to provide for their welfare. Kerala Government has already enacted a legislation for this purpose.

Rural Labour Enquiries

The Central Government has so far conducted four all-India rural labour enquiries. The first two enquiries, known as the Agricultural Labour Enquiry, were conducted during 1950-51 and 1956-57. The other two enquiries, known as the Rural Labour Enquiry, were conducted in 1963-65 and 1974-75. The scope of the last two enquiries was extended to cover all labour households in the rural areas of the country.

The main objectives of the rural labour enquiries have been to prepare a weighing diagram for consumer price index numbers for

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rural/agricultural workers and to build up reliable and up-to-date estimates of important socio-economic characteristics of agricultural/ rural labour households as also to study their trends and variations during the *interregnum*. The data collected under these enquiries pertain to demographic structure, extent of employment and unemployment, earnings, household income, household consumption expenditure, indebtedness, etc., with additional data on literacy, trade unionism, and awareness of the Minimum Wages Act (and the wages fixed thereunder) among the agricultural labourers during the latest enquiry.

The field work of the second rural labour enquiry was integrated with the 29th round of the National Sample Survey and was completed in June 1975. The work relating to preparation of tables was taken up on completion of scrutiny of schedules received from the field. Six reports (three summary and three detailed) have so far been released on the findings of this enquiry and the last is due for release.

With a view to narrowing down the gap between the rural labour enquiry rounds as also to rationalise the field programmes of the National Sample Survey Organisation, it has been decided to integrate the rural labour enquiry with the general employment-unemployment survey of the NSSO repeated every five years. Accordingly, the Employment-Unemployment Survey of the NSSO (32nd round—July 1977 to June 1978) covered almost all the important aspects of rural agricultural labour households, which were covered in the Rural Labour Enquiry, 1974-75. The data collected during this round is still under processing in NSSO. The subsequent round under the integrated arrangement is being covered during 1983 (38th round of NSSO).

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23 HOUSING

Housing inadequacies in India have both quantitative and qualitative aspects. The problem of housing has tended to worsen over the years due to (i) rapid increase in population, (ii) fast rate of urbanisation, and (iii) proportionately inadequate addition to the housing stock. There is a qualitative difference between problems of urban and rural housing. Whereas the problem of urban areas is, by and large, that of congestion, slums and squatter settlements, the rural areas are characterised by the absence of essential services and poor environmental conditions. Any comprehensive solution to India's housing problem cannot afford to ignore either.

Since Independence, India has changed a great deal. Post-Independence policies of providing greater employment opportunities and better health care have led to many more people having higher disposable incomes, and to a growing population which is living longer than the earlier generations. These changes are being reflected in the growing number of new households needing housing and the rising standard of expectation where housing standards are concerned. Housing policy in India thus concentrates on increasing the number of houses built and encourages people to own their own houses. Although living standards have improved for many people, it has also become abundantly clear that the fundamental inequalities have remained unaltered.

HOUSING REQUIREMENTS

The United Nations had estimated that for developing countries like India, the annual construction rate of 8-10 dwellings per thousand population in the next 2-3 decades should be achieved in order to prevent further deterioration of housing situation. It has been estimated that as against the requirement of 5 dwelling units per 1,000 population per year due to growth of population alone, the net addition to the housing stock was only 2-3 dwellings per 1,000 per year up to 1971. Between 1971-81, this rate increased to 4 dwellings per 1,000 per year. The need for improvement in the existing standards and replacement of old stock further adds to the housing shortage.

These factors have, therefore, led to a significant housing shortage in the country. According to the tentative estimates made by the

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National Buildings Organisation, the housing shortage in the country as on 1 April 1982 was 2.19 crore. Of course, this does not connote houselessness, since this figure includes people who could be actually occupying a dwelling which is sub-standard. However, the houseless[1] population in India is estimated at 25.3 lakh, out of which 6.7 lakh were in urban areas and 18.6 lakh in rural areas, according to the 1981 Census.

SOCIAL HOUSING SCHEMES

Housing has long been an area of Central and state governments concern and this reflects its vital importance for both individual and social welfare. Since Independence, the Government has accepted that the state has to play an important role in housing provision; consequently, state's involvement has grown and an increasing amount of public expenditure has been spent on housing.

The role of the Central Government *vis-a-vis* the social housing schemes in operation in the country is confined to laying of broad principles, providing necessary advice and rendering financial assistance in the form of loans and subsidies to the state governments/union territories and watching the progress of the schemes. The state governments/union territory administrations have been vested with full powers to formulate, sanction and execute the projects under these schemes and also to release financial assistance therefor to the concerned construction agencies. Since the beginning of the Fourth Plan, all central financial assistance is given to the states in the form of 'block grants' and 'block loans' for all state sector schemes, including housing schemes, without being tied to any particular head of development or scheme. Besides financing the schemes, the Ministry of Works and Housing, also monitors the progress of the same.

Till June 1982, the following social housing schemes (with year of introduction) were in operation in the country, of which only the subsidised housing scheme for plantation workers is in the central sector : (i) integrated subsidised housing scheme for industrial workers and economically weaker sections of community (1952); (ii) low income group housing scheme (1954); (iii) subsidised housing scheme for plantation workers (1956); (iv) middle income group housing scheme (1959); (v) rental housing scheme for state government employees (1959); (vi) slum clearance/improvement scheme (1956); (vii) village housing projects scheme (1957); (viii) land acquisition and development scheme (1959) and (ix) provision of house sites to landless workers in rural areas (1971).

The rural house-sites scheme which was in the central sector was transferred to the state sector from 1 April 1974. From July 1982, the existing social housing schemes, except the two referred to above, have been reclassified in 4 categories on the basis of income criteria as : (i) housing scheme for economically weaker sections, (ii) low income group housing scheme, (iii) middle income group housing scheme, and (iv) rental housing scheme for state government employees.

According to information received from the state governments/union territory administrations, out of 11,00,493 houses sanctioned under the various housing schemes in the state sector, 8,33,571 had been completed by 30 June 1982. The primary target groups in the

[1]Persons, who at the time of Census have no shelter to live and who sleep on the pavements, piers and such other spaces.

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Sixth Plan are those belonging to economically weaker sections. During 1982-83, out of an all-India target of 1.86 lakh houses, an achievement of about 1.46 lakh houses was made under economically weaker section housing schemes.

House sites-cum-Construction Assistance Scheme

The house sites-cum-construction assistance scheme for rural landless workers is in operation in 18 states and 6 union territories. In the Sixth Plan, a provision of about Rs 354 crore has been made for this scheme—Rs 170 crore for the provision of house sites and about Rs 184 crore for construction assistance. The Plan provides for Rs 250 per family for developed plots, approach roads, a masonry well for a cluster of 30-40 families and also construction assistance of Rs 500 per family. All labour input is to be provided by the beneficiaries themselves.

Up to March 1983, there were 134.5 lakh families eligible for allotment of house sites. It is estimated that the number of eligible families needing housing assistance would be around 145 lakhs by March 1985. Of these, 104.5 lakh families had been allotted house sites up to March 1983. The Sixth Plan proposes providing of house sites to all the remaining landless families. The construction of houses/huts is being done by the state governments and the individuals by their own efforts or through government assistance. By way of all these efforts, 21.9 lakh houses/huts had been constructed up to March 1983.

HOUSING SCHEMES UNDER PLANS

Housing is an activity that is typically labour intensive and, therefore, fits in well with the pattern of development envisaged in the various Plans in India. Housing construction also creates much needed employment for the unskilled and, therefore, income for the relatively poor.

Apart from the houses constructed for the government employees, the role of the public sector in the provision of housing has been small. Subsidised dwellings have been provided to certain selected economically weaker sections of the community. Between 1950-51 and December 1979, 2.05 lakh houses were constructed for the plantation labour and industrial workers. Housing for other low income groups totalled 3.36 lakhs.

Till the Fourth Plan, the role of the Central Government in the field of housing was rather limited. It was only during the Fifth Plan that provision was made to provide house sites to the rural landless as well in addition to the schemes operating in the urban areas.

The Sixth Plan clearly states that the provision of shelter is a basic need which must be met. The objectives in respect of housing in the Plan are : (i) provision of house sites and assistance for the construction of dwellings for rural landless labourers, (ii) in view of the severe constraints of public resources, public sector social housing schemes will be designed to benefit the maximum number of people, and (iii) specific efforts must be made to secure reduction in costs in public housing schemes by reviewing standards and by using cheap and alternative building materials.

For the Sixth Plan period, the combined public and private outlay is expected to be about Rs 12,900 crore—Rs 3,500 crore for rural housing and Rs 9,400 crore for urban housing. Additional investment by public sector enterprises, departmental undertakings and

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grants-in-aid to institutions may be of the order of Rs 250-300 crore. The emphasis so far as public sector is concerned, continues to be on providing shelter. In addition to this, private sector is expected to invest about Rs 11,500 crore during the Sixth Plan. The total investment in housing during the different schemes is Rs 12,991 crore.

HOUSING FINANCE

Housing finance is the most crucial element in house construction and building activities. In the field of housing, the public sector has a marginal though promotional role to play. The bulk of the investment in housing is, however, expected to come from the private sector.

A number of specialised agencies have come up in recent times in the country, yet the bulk of the finance for housing originates from a selected group of central financial institutions comprising the Life Insurance Corporation of India (LIC), the General Insurance Corporation of India (HUDCO), the Employees Provident Fund Organisation of India (HUDCO), the Employees Provident Fund Organisation, etc. Funds are also provided and channelised through the state apex cooperative housing societies, state housing boards and housing and urban development authorities, nationalised commercial banks, etc.

During the last decade, the contribution of the LIC has increased from Rs 263.05 crore in 1971-72 to Rs 791.93 crore in 1980-81, the contribution of HUDCO increased from Rs 5.14 crore to Rs. 267.16 crore, during the same period. Among the recently constituted institutions, the GIC and Housing Development Finance Corporation (HDFC) have allocated Rs 44.5 crore and Rs 41.25 crore respectively for economically weaker sections and rural housing from 1978-79 to 1980-81. The scheduled commercial banks are, as per instructions of Reserve Bank of India required to provide housing finance amounting to Rs 150 crore to borrowers/group of borrowers/institutions for economically weaker sections, low income group (LIG) and middle income group (MIG) housing. Over the last three decades, public investment in housing through the Five Year Plans has been of the order of Rs 1,253 crore. In addition, investment by public sector enterprises, departmental undertakings and grant-in-aid to institutions was about Rs 1,800 crore. Investment by private sector during the corresponding period has been estimated to be about Rs 12,740 crore.

House Building Advance

The Central Government also has a scheme under which it grants loans to its employees, including those governed by the Payment of Wages Act, on the basis of a welfare scheme sanctioned in 1956 for building houses. From 1 April 1978, loan sanctioning powers were delegated to the ministries/departments. The budget and allotment of funds are controlled by the Ministry of Works and Housing. A provision of Rs 34 crore was made for 1982-83.

URBAN DEVELOPMENT

The Sixth Plan emphasises the development of small, medium and intermediate towns. Urban development is seen as complementary to rural development so that policies affecting the process of urbanisation would strengthen the links between the cities and their hinterland. The objective of the Sixth Plan is to strengthen the small and medium towns for increased investments in housing, water supply, communication, education, medical care, recreation, etc. It is envisaged that positive

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incentives would be given for setting up new industries and other activities in these towns, accompanied by improvement in power and telecommunication facilities. With this objective in view, a centrally sponsored scheme for the development of small and medium towns with population less than one lakh has been in operation since December 1979.

The Sixth Plan has made a provision of Rs 96 crore in the central sector in order to support the integrated development of 231 small and medium towns during the plan period. The Central Government would finance schemes for shelter, transportation and economic activities to the extent of 50 per cent of the project cost or Rs 40 lakh, whichever is lesser subject to matching funds from the state agencies. The state government would further undertake investments in water supply, sanitation, slum improvement and social facilities as a part of the integrated project. The projects are appraised by the Town and Country Planning Organisation under the Ministry of Works and Housing. It is expected that about Rs 35 crore would have been released to the state governments by way of central assistance under this project by the end of March 1983 for 225 projects.

Environmental Improvement of Slums

Under the programme for the environmental improvement of slums, the Sixth Plan envisages an investment of Rs 151.45 crore in the state sector for the provision of basic amenities to about one crore living in slums in different urban areas in the country. The scheme forms part of the minimum needs programme. This is in continuation of the scheme introduced in 1972 under which amenities like water supply, sewerage, sanitation, paved pathways, community latrines and street lighting were provided to slum dwellers in selected urban areas. Out of the estimated slum population of about 3.3 crore in 1985, it is reported that about 68 lakh had been covered till the end of March 1980. During the first three years of the Sixth Plan, a population of about 40 lakh is expected to have been covered through an expenditure of about Rs 49.78 crore. During 1982-83, it is proposed to provide amenities to about 17.75 lakh through an expenditure of about Rs 31.59 crore.

National Capital Region

It has been decided to revitalise the plan for the development of National Capital Region by the establishment of a statutory board at the central level. An agreement to this effect has been reached between the Union Minister of Works and Housing and the Chief Ministers of Uttar Pradesh, Haryana, Rajasthan and Lt. Governor of Delhi. A central legislation for this purpose is proposed to be introduced after obtaining the resolutions of the concerned state legislatures.

Jhuggi and Jhonpri Removal Scheme

The *jhuggi* and *jhonpri* removal scheme is designed to provide alternative accommodation to unauthorised occupants of government and public lands in Delhi and New Delhi. About two lakh tenements and plots have been constructed/developed under the scheme so far. Another scheme for developing 25,000 plots for re-settlement of squatter families left in residuary areas of Delhi has been sanctioned by the government recently.

Drinking Water to Villages

The outlay for the supply of drinking water to problem villages under the Revised 20-Point Programme for 1982-83 is Rs 412.24 crore. The outlay for 1983-84 is Rs 519 crore. During 1982-83, more than

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42,300 problem villages were to be covered and the target for 1983-84 is 48,000 villages.

Socialisation of Urban Land

The Urban Land (Ceiling & Regulation) Act, 1976 came into force on the 17 February 1976. It provides for : (i) imposition of a ceiling on both ownership and possession of vacant land in urban agglomerations, the ceiling being on a graded basis according to the classification of the urban agglomeration; (ii) acquisition of the excess vacant land by the state government with powers to dispose of the vacant land to sub-serve the common good; (iii) payment of an amount for the acquisition of the excess vacant land in cash and in bonds; (iv) granting exemptions in respect of certain special categories of vacant lands; and (v) restricting the plinth area for the construction of future residential buildings.

The Act applies to all the union territories and all the states except Jammu and Kashmir, Kerala, Nagaland and Sikkim, which have not adopted the Act so far; and also excludes Tamil Nadu which had enacted its own law in 1978.

The state governments have, from time to time brought to the notice of the Central Government several difficulties in the implementation of the Act. With a view to removing these difficulties, a working group was constituted by the Ministry of Works and Housing in November 1979 to go into the matter and make suitable recommendations. The working group submitted its report in April 1980. An inter-ministerial group was constituted to process the recommendations of the working group and to formulate special proposals for Government's consideration. The inter-ministerial group has since submitted the report and their proposals are under consideration.

According to the reports received from the concerned state governments/union territories, 5,123 hectares of land has vested in Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, West Bengal and the union territory of Delhi. So far 39,817 exemptions have been granted for industrial and other purposes covering 59,830 hectares of land. The Act also provides for granting permission to hold land in excess of the ceiling limits for utilising them for the construction of dwelling units for the weaker sections of the society.

CONSTRUCTION AGENCIES

The National Buildings Construction Corporation Ltd. (NBCC), was set up in 1960 with the specific objective of developing quality consciousness and reducing the cost of construction as well as for undertaking construction works in difficult and inaccessible areas.

National Buildings Construction Corporation

NBCC undertakes construction of specialised and complicated works on a turn-key basis, including planning and designing. NBCC has also undertaken considerable works in Libya and Iraq, which involve construction of airports, housing colonies, hostels, hotels, universities and sewerage works.

Central Public Works Department

The Central Public Works Department (CPWD) designs, constructs, maintains and repairs all works and buildings of the Central Government, except those belonging to the railways, communications, atomic energy, defence services and All India Radio. It also maintains national highways in Delhi and exercises technical control over the

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public works departments of union territories. Public undertakings which do not have their own civil engineering organisations, have to entrust their construction works to CPWD or public sector construction and consultancy organisations. The CPWD also works on behalf of semi-government organisations on a deposit basis.

The CPWD has developed considerable expertise in the architectural landscaping, structural and horticultural fields, as well as in civil construction and the installation of services. The Department has a well developed architectural wing, a central designs organisation for complex structural design work, field units for the execution of projects and an electrical and mechanical wing to handle a variety of service installations.

Housing and Urban Development Corporation

The Housing and Urban Development Corporation (HUDCO), a Government of India enterprise, under the Ministry of Works and Housing, was set up in 1970 as an apex organisation mainly to provide loan finance for housing and urban development programme in the country with a primary emphasis on the promotion of housing for the persons belonging to low income groups and economically weaker sections.

The main sources of finance for HUDCO are equity contribution by the Government, borrowing from LIC and floating of debentures. The Sixth Plan envisages an investment of Rs 600 crore by HUDCO during the Plan. As on 31 January 1983, HUDCO had sanctioned 2,237 schemes with loan commitment of Rs 1,046.25 crore. This will help construction of 13,56,584 residential dwellings and development of 77,477 residential plots including sites and services of which 9,74,161 dwelling units and 38,555 residential plots would be for the economically weaker sections.

Hindustan Prefab Ltd.

The Hindustan Prefab Ltd. (earlier known as Hindustan Housing Factory Ltd.), New Delhi, a Government of India company, apart from manufacturing pre-fabricated houses, specialises in producing several other items, such as pre-fabricated reinforced cement concrete components, pre-stressed cement concrete transmission poles, foam concrete panels and partition and insulation blocks. It undertakes wooden joinery work and has the largest seasoning kilns for timber in north India. It has standardised certain pre-cast building components for use by individual house-builders and construction agencies. The pre-fabricated components for industrial structures by the factory have not only effected saving in steel and resulted in quicker construction but also brought down the construction cost to some extent.

National Buildings Organisation

The National Buildings Organisation (NBO), an attached office of the Ministry of Works and Housing, was set up in 1954 as an advisory and coordinating body for all technical matters concerning housing and building. NBO promotes housing and building research and its application with the objective of making in readily acceptable by the construction departments and the building industry. It documents and disseminates information on the latest advances in building technology with a view to effecting reduction in cost and improvement in the quality of building and housing construction. The Organisation also tries to stimulate the production of traditional building material industries. It is responsible for the compilation of housing and building statistics at the national level and monitoring of the implementation

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of various social housing schemes. It undertakes research studies in the sociological and economic aspects of housing. Twelve rural housing wings at Vallabh Vidyanagar (Anand), Bangalore, Calcutta, Chandigarh, Srinagar, Trivandrum, Varanasi, Jodhpur, Shimla, Ranchi, Madras and Guwahati are functioning under NBO for research, training and extension work in rural housing and village planning.

NBO also functions as the United Nations Regional Housing Centre for ESCAP region.

Town and Country Planning Organisation

The Town and Country Planning Organisation (TCPO) is a technical advisory body on all matters pertaining to urban and regional development. It provides technical guidance and assistance to all state governments and union territories. TCPO also undertakes project work for development on consultancy basis from public undertakings and local bodies.

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24 JUSTICE AND THE LAW

The Constitution of the Republic of India guarantees, besides other rights, safeguards against arbitrary deprivation of life and personal liberty by providing in Article 21 that no person shall be deprived of his life or personal liberty except according to procedure established by law.

The adoption of a republican Constitution by India in 1950 did not disturb the continuity of the existing laws and the unified structure of the courts. Article 372 provides that notwithstanding the repeal of the Government of India Act, 1935, and the Indian Independence Act, 1947, but subject to the other provisions of the Constitution, all laws which were in force immediately before its commencement, shall continue to be in force until altered, repealed or amended by a competent legislature or authority. Article 375 provides that "All courts of civil, criminal and revenue jurisdiction, all authorities, and all officers, judicial, executive and ministerial throughout the territory of India, shall continue to exercise their respective functions subject to the provisions of this Constitution". The unity and the uniformity of the judicial structure were preserved by placing such areas of law like criminal law and procedure, civil procedure, wills, succession, contract including special form of contract, but not including contract relating to agricultural land, registration of deeds and documents, evidence, etc., in the Concurrent List.

Sources of Law

The main sources of law in India are the Constitution, statutes (legislation), customary law and case law. The statutes are enacted by Parliament, the state legislatures and the union territory legislatures. Then there is a vast body of laws known as subordinate legislation in the form of rules, regulations as well as bye-laws which are made by the Central and state governments and local authorities like municipal corporations, municipalities, *gram panchayats* and other local bodies. This subordinate legislation is made under the authority conferred or delegated either by Parliament or the state or union territory legislatures concerned. Judicial decisions of the superior

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courts like the Supreme Court and the High Courts are an important source of law. The decisions of the Supreme Court are binding on all courts within the territory of India. As India is a land of diversities, local customs and conventions which are not against statute, morality, etc., are to a limited extent also recognised and taken into account by the courts while administering justice in certain spheres.

Parliament is competent to make laws on matters enumerated in the Union List. The state legislatures are competent to make laws on matters enumerated in the State List. Parliament alone has power to make laws on matters not included in the State List or Concurrent List. On matters enumerated in the Concurrent List, laws can be made both by Parliament as well as state legislatures. But in the event of repugnancy, the law made by Parliament shall prevail and the law made by the state legislature to the extent of the repugnancy, be void, unless, the latter law having been reserved for the consideration of the President, has received his assent, and in that event it shall prevail in that state.

PARLIAMENT

Laws made by Parliament may extend throughout or any part of the territory of India and those made by state legislature may generally apply only within the territory of the state concerned. Hence, variations are likely to exist from state to state in the provisions of law relating to matters falling within the State and Concurrent Lists.

One of the unique features of the Indian Constitution is that notwithstanding the adoption of a federal system and the existence of Central Acts and State Acts in their respective spheres, it has generally provided for a single integrated system of courts to administer both the union and the state laws. At the apex of the entire judicial system exists the Supreme Court of India with a High Court for each state or group of states and under the High Courts, there is a hierarchy of subordinate courts.

There is generally separation of judiciary from executive. The *Panchayat* courts also generally function in some states under the various names like *Nyaya Panchayat, Panchayat Adalat, Gram Kachahari,* etc., to decide civil and criminal disputes of petty and local nature. The different state laws provide for different kinds of jurisdiction of the courts.

Each state is divided into judicial districts presided over by a district and sessions judge, who is the principal civil court of original jurisdiction and can try all offences including those punishable with death. He is the highest judicial authority in a district. Below him, there are courts of civil jurisdiction, known variously in different states as *munsifs,* sub-judges, civil judges and the like. Similarly, the criminal judiciary consists of chief judicial magistrate and judicial magistrates of the first and the second class.

JUDICIARY

SUPREME COURT

The Supreme Court of India consists of a Chief Justice and not more than 17 other judges appointed by the President. The judges hold office till the age of 65. For appointment as a judge of the Supreme Court, a person must be a citizen of India and must have been for at least five years a judge of a High Court or of two or more such courts in succession; or an advocate of a High Court or of two or more such courts in succession for at least 10 years or he must be in the opinion

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of the President, a distinguished jurist. Provision exists for the appointment of a judge of a High Court as an *ad hoc* judge of the Supreme Court and for retired judges of the Supreme Court or High Courts to sit and act as judges of that Court.

The Constitution seeks to ensure the independence of the Supreme Court judges in various ways. A judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address in each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-third of the members present and voting, has been presented to the President in the same session for such removal, on the ground of proved misbehaviour or incapacity. A person who has been a judge of the Supreme Court is debarred from practising in any court of law or before any other authority in India.

The seat of the Supreme Court of India is in New Delhi. The membership of the court as on 31 March 1983 was : Chief Justice : Y. V. Chandrachud; Judges : P. N. Bhagwati, S. Murtaza Fazal Ali, V. D. Tulzapurkar, D. A. Desai, R. S. Pathak, O. Chinnappa Reddy, A. P. Sen, E. S. Venkataramiah, A. Varadarajan, A. N. Sen, V. Balakrishna Eradi, R. B. Misra, D. P. Madon, Sabyasachi Mukharji, M. P. Thakkar and Ranganath Misra.

Jurisdiction of the Supreme Court

The Supreme Court has original, appellate and advisory jurisdiction. Its exclusive original jurisdiction extends to any dispute between the union and one or more states, or between the union and any state or states on one side and one or more other states on the other; or between two or more states, if and in so far as the dispute involves any question (whether of law or of fact) on which the existence or extent of a legal right depends. In addition, Article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to the enforcement of Fundamental Rights. It is empowered to issue directions or orders or writs, including writs in the nature of *habeas corpus, mandamus,* prohibition, *quo-warranto* and *certiorari* to enforce them.

The Supreme Court has been conferred powers to direct the transfer of any civil/criminal case from one state High Court to another state High Court or from a court subordinate to one state High Court to a court of competent jurisdiction subordinate to another state High Court. The Supreme Court, if satisfied, that cases involving the same or substantially the same questions of law are pending before it and in one or more High Courts or before two or more High Courts and that such questions are substantial questions of general importance, may withdraw the case or cases pending before the High Court or High Courts and dispose of all the cases itself.

The appellate jurisdiction of the Supreme Court can be invoked by the certificate of the High Court concerned or by special leave granted by the Supreme Court, in respect of any judgment, decree or final order of the High Court in cases both civil and criminal, involving substantial questions of law as to the interpretation of the Constitution. Appeals also lie to the Supreme Court in civil matters if the High Court concerned certifies (a) that the case involves a substantial question of law of general importance and (b) that in the opinion of the High Court the said question needs to be decided by the Supreme Court. In criminal cases an appeal lies to the Supreme Court, if the High Court (a) has on appeal reversed an order of acquittal of

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an accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (b) has withdrawn for trial before itself any case from any court subordinate to its authority and has in such trial convicted the accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (c) certifies that the case is a fit one for appeal to the Supreme Court. Parliament is authorised to confer on the Supreme Court any further powers to entertain and hear appeals from any judgment, final order or sentence in a criminal proceeding of a High Court.

The Supreme Court has also a very wide appellate jurisdiction over all courts and tribunals in India inasmuch as it may, in its discretion, grant special leave to appeal from any judgment, decree, determination, sentence or order in any cause or matter passed or made by any court or tribunal in the territory of India.

It has a special advisory jurisdiction in matters which may specifically be referred to it by the President under Article 143 of the Constitution.

Appeals also lie to the Supreme Court under the Representation of People Act, Monopolies and Restrictive Trade Practices Act, the Advocates Act, the Contempt of Courts Act, etc.

HIGH COURTS

High Court stands at the head of the state's judicial administration. There are 18 High Courts in the country, including two having jurisdiction over more than one state. Among the union territories, Delhi alone has a High Court of its own. Other eight union territories come under the jurisdiction of different state High Courts. Each High Court consists of a Chief Justice and such other judges as the President may, from time to time, appoint. The Chief Justice of High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the state. The procedure for appointing other judges is the same except that the Chief Justice of the High Court concerned is also consulted. They hold office until they attain the age of 62 and are removable in the same manner as a judge of the Supreme Court of India. To be eligible for appointment as a judge, one must have held a judicial office in India for 10 years or must have practised as an advocate of a High Court or two or more such courts in succession for a similar period.

Every High Court has the power to issue to any person or authority and government within its jurisdiction directions, orders or writs (including writs which are in the nature of *habeas corpus, mandamus,* prohibition, *quo-warranto* and *certiorari*), or any of them for the enforcement of any of the Fundamental Rights and for any other purpose.

This power may also be exercised by any High Court exercising jurisdiction in relation to the territories within which the cause of action, wholly or in part, arises for the exercise of such power, notwithstanding that the seat of such government or authority or the residence of such person is not within those territories.

The High Courts have powers of superintendence over all courts within their jurisdiction. They can call for returns from such courts, make and issue general rules and prescribe forms to regulate their practices and proceedings and determine the manner and form in which books, entries and accounts shall be kept.

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Table 24.1 gives the seat and territorial jurisdiction of High Courts.

TABLE 24·1
JUHISDICTION AND SEAT OF HIGH COURTS

Name	Year of Establishment	Territorial Jurisdiction	Seat of the Court
Allahabad	1866	Uttar Pradesh	Allahabad (Bench at Lucknow)
Andhra Pradesh	1954	Andhra Pradesh	Hyderabad
Bombay	1861	Maharashtra; Dadra and Nagar Haveli; and Goa, Daman and Diu.	Bombay (Benches at Nagpur and Panaji) (Temporary Bench at Aurangabad)
Calcutta	1861	West Bengal; and Andaman and Nicobar Islands	Calcutta
Delhi	1966	Delhi	Delhi
Guwahati	1972	Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh	Guwahati (Temporary Benches at Imphal, Agartala, Shillong and Kohima)
Gujarat	1960	Gujarat	Ahmedabad
Himachal Pradesh	1971	Himachal Pradesh	Shimla
Jammu and Kashmir	1928	Jammu and Kashmir	Srinagar and Jammu
Karnataka	1884	Karnataka	Bangalore
Kerala	1956	Kerala and Lakshadweep	Ernakulam
Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Gwalior and Indore)
Madras	1861	Tamil Nadu and Pondicherry	Madras
Orissa	1948	Orissa	Cuttack
Patna	1916	Bihar	Patna (Bench at Ranchi)
Punjab and Haryana	1947	Punjab, Haryana and Chandigarh	Chandigarh
Rajasthan	1949	Rajasthan	Jodhpur (Bench at Jaipur)
Sikkim	1975	Sikkim	Gangtok

Subordinate Courts

Subject to minor variations, the structure and functions of the Subordinate Courts are more or less uniform throughout the country. A state is divided into a number of districts, each under the jurisdiction of a principal civil court presided over by a district judge. Sometimes he is assisted by additional district judges. Subordinate to a district judge is a hierarchy of different grades of civil courts.

Besides hearing suits, the civil courts exercise jurisdiction over several matters such as arbitration, guardianship, marriage, divorce and probate. Quasi-judicial tribunals distinct from the ordinary courts have also been set up under certain special Acts for determining some types of civil rights. In some cases appeals lie from their orders to the ordinary civil courts. Every High Court exercises the power of superintendence over all courts subordinate to it subject to its appellate jurisdiction.

The constitution and organisation of criminal courts and their procedure are regulated by the Code of Criminal Procedure 1973, which came into force with effect from 1 April 1974, repealing the

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Code of Criminal Procedure, 1898. The Code provides separate sets of magistrates for the discharge of the executive and judicial functions. Magistrates, both executive and judicial, in so far as their judicial work is concerned, are subject to the superintendence and control of the High Court. There is a district magistrate and under him a number of subordinate magistrates. These magistrates continue to deal with problems relating to the maintenance of law and order and the prevention of crime. On the judicial side, the judicial hierarchy of magistrates consists of the chief judicial magistrate at the district level and the judicial magistrates of the first class and second class. Broadly speaking, magisterial functions, which are essentially judicial in nature, are the concern of the judicial magistrates. In metropolitan areas with a population of more than 10 lakhs, there are metropolitan magistrates who have larger powers for quicker disposal of cases.

As on 31 December 1981, the number of subordinate courts functioning in the country at district level was 2,543 district/additional district and sessions judges and assistant sessions judges/subordinate judges and 4,793 *munsifs*/magistrates.

Reform in Criminal Procedure

Radical changes in the criminal procedure have been made by the new Code of Criminal Procedure, 1973. Some more amendments were made in 1978 and 1980. The new code makes several important changes designed to expedite the disposal of cases, to improve efficiency, to prevent abuses and to afford relief to the poorer sections of the community.

Attorney-General

The Attorney-General of India is appointed by the President and holds office during the pleasure of the President. He must be a person qualified to be appointed as a judge of the Supreme Court. It is the duty of the Attorney-General of India to give advice to the Government of India upon such legal matters, and to perform such other duties of legal character, as may be referred or assigned to him by the President. In the perferance of his duties, he has the right of audience in all courts in India as well as the right to take part in the proceedings of Parliament without the right to vote.

In the discharge of his functions, the Attorney-General is assisted by a Solicitor-General and two Additional Solicitors-General.

Advocate-General

There is an Advocate-General for each state, appointed by the Governor and he holds office during the pleasure of the Governor. He must be a person qualified to be appointed as a judge of a High Court. His duty is to give advice to the state government upon such legal matters, and to perform such other duties of a legal character, as may be referred or assigned to him by the Governor. The Advocate-General has the right to speak and take part in the proceedings of the state legislature without the right to vote.

Legal Profession

In India, the law relating to the legal profession is governed by the Advocates Act, 1961, and the rules framed by the Bar Council of India, thereunder. It is a self-contained code of law relating to legal practitioners and for the constitution of state Bar Councils and the Bar Council of India.

There is only one class of persons entitled to practise the profession of law, namely, persons enrolled as advocates under the Advocates Act with one of the state Bar Councils. The dual system of attorney and

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advocate which was in existence in the High Courts of Bombay and Calcutta had been abolished with effect from 15 October 1976. There are two classes of advocates—"senior advocates" and "other advocates." The roll of advocates of each state Bar Council shall contain two parts—Part I containing the names of "senior advocates" and Part II containing the names of "other advocates". No person shall be enrolled as an advocate on the roll of more than one state Bar Council. An advocate may with his consent be designated as senior advocate, if the Supreme Court or a High Court is of the opinion that by virtue of his ability, standing at the bar or special knowledge or experience in law, deserved such distinction.

Some of the restrictions on a senior advocate in the matter of his practice are, that he shall not file a *vakalatnama;* he shall not appear without an advocate on record; he shall not accept instruction to draft pleadings, etc., without the consultation of an advocate in Part II of the state roll; he shall not accept directly from a client any brief, or instruction to appear in a court, etc.

An advocate on the roll of one state Bar Council may apply for transfer to any other state Bar Council in the prescribed manner. Certain standards of education, etc., have been prescribed for enrolment as advocates. There are certain rules regulating the standards of professional conduct and etiquette.

Every advocate shall bear in mind that any one genuinely in need of a lawyer is entitled to legal aid even though he cannot pay for it fully or adequately, and within the limits of an advocate's economic condition, free legal assistance to the indigent and oppressed is one of the higher obligations an advocate owes to society.

The Bar Councils have disciplinary jurisdiction over advocates on their rolls. This is subject to a right of appeal to the Bar Council of India and a further right of appeal to the Supreme Court of India.

The Government brought amendment in respect of Section 17 of the Advocates Act, 1961, relating to seniority of attorneys and also to Section 23 of the Act conferring right or pre-audience to the second Additional Solicitor General of India over all other advocates and the said amendments have been brought into force.

LAW COMMISSION

The need for periodical revision of the form and content of the law has been recognised for a long time in all countries. Changing social and economic conditions as well as changed concepts on certain ethical issues necessitate a review of the existing laws from time to time. Without a standing body which would be entrusted with a systematic review of the law, this work cannot be performed satisfactorily. This has been the basic philosophy underlying the move for the creation of Law Commissions in various countries.

In India, the Law Commission was constituted in 1955 and has, since then, been reconstituted from time to time. The principal function of Law Commission may be described as bringing the law up to date.

The Law Commission was re-constituted for a further period of three years from 14 December 1981 and consists of a retired Judge of the Supreme Court as chairman, two full-time members, one of whom is retired Chief Justice of a High Court and another is retired Judge of a High Court and one Member-Secretary of the status of a Secretary to the Government of India.

The terms of reference of the Law Commission are :

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(1) To keep under review the system of judicial administration to ensure that it is responsive to the reasonable demands of the time and in particular to secure : (a) elimination of delays, speedy clearance of arrears and reduction in costs so as to secure quick and economical disposal of cases without affecting the cardinal principle that decisions should be just and fair; (b) simplification of procedure to reduce and eliminate technicalities and devices for delay so that it operates not as an end in itself but as means of achieving justice; and (c) improvement of standards of all concerned with the administration of justice.

(2) To examine the existing laws in the light of Directive Principles of State Policy and to suggest ways of improvement and reform and also to suggest such legislation as might be necessary to implement the Directive Principles and to attain the objectives set out in the Preamble to the Constitution.

(3) To revise the Central Acts of general importance so as to simplify them and to remove anomalies, ambiguities and inequities.

(4) To recommend to the government measures for bringing the Statute book up-to-date by repealing obsolete laws and enactments or parts thereof which have outlived their utility.

(5) To consider and to convey to the government its views on any other subject relating to law and judicial administration that may be referred to it.

PERSONAL LAW

In India, there are people of different religions and faiths. They are governed by different sets of personal laws in respect of matters relating to family affairs, i.e. marriage, divorce, succession, etc.

Marriage

The law relating to marriage has been codified in different Acts applicable to people of different religions. These are:

(1) The Hindu Widows Remarriage Act, 1856;
(2) The Converts' Marriage Dissolution Act, 1866;
(3) The Indian Divorce Act,1869;
(4) The Indian Christian Marriage Act, 1872;
(5) The Kazis Act, 1880;
(6) The Anand Marriage Act, 1909;
(7) The Child Marriage Restraint Act, 1929;
(8) The Parsi Marriage and Divorce Act, 1936;
(9) The Dissolution of Muslim Marriages Act, 1939;
(10) The Special Marriage Act, 1954;
(11) The Hindu Marriage Act, 1955; and
(12) The Foreign Marriage Act, 1969.

The Special Marriage Act, 1954, extends to the whole of India, except Jammu and Kashmir and also applies to citizens of India domiciled in the territories to which the Act extends who are in Jammu and Kashmir. Persons governed by this Act can specifically register the marriage under the said Act even though they are of different religious faiths. The Act also provides that marriage celebrated under any other form can also be registered under the Special Marriage Act, if it satisfies the requirements of the Act.

The Hindu Marriage Act, 1955, which extends to the whole of India, except Jammu and Kashmir, applies also to Hindus domiciled in territories to which the Act extends who are outside the said territories. It applies to Hindus of all denominations, including Buddhists, Sikhs, Jains and all those who do not profess to be Muslim, Christians or Parsis or Jews. However, the Act does not apply to the members of any

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scheduled tribes unless the government otherwise directs. An attempt has been made to codify the customary law which is prevalent in Hindus by enacting the Hindu Marriage Act, 1955. However, in spite of this codification, the courts in this country have always held that :

> "the concept of marriage under the Hindu law, however, has not undergone any radical change by the enactment of the Hindu Marriage Act. In fact, the basic structure of that concept has not at all been touched and it remains a *sanskar* or a sacrament. To a Hindu, marriage is not a matter of agreement or contract but is a spiritual union of the two souls. Holy invocation before the fire and *saptapadi* are the minimum requisites for solemnisation of the Hindu marriage." *Shakuntala* vs. *Neelakanth,* 1973, Maharashtra Law Journal, p. 31.

The provisions in regard to divorce are contained in Section 13 of the Hindu Marriage Act and Section 27 of the Special Marriage Act. The common ground on which divorce can be sought by a husband or a wife under these Acts fall under the broad heads : adultery, desertion, cruelty, unsoundness of mind, venereal disease, leprosy, mutual consent and being not heard of as alive for seven years.

As regards the Christian community, the provisions relating to marriage and divorce are contained in the Indian Christian Marriage Act, 1872, and the Indian Divorce Act, 1869. The provisions in regard to divorce applicable to Christian community are contained in Section 10 of the Indian Divorce Act. Under that section a husband can seek a divorce on the ground that the wife has been guilty of adultery but the wife can seek a divorce on the ground that the husband has become convert to another religion and has gone through a marriage with another woman or has been guilty of (a) incestuous adultery, (b) bigamy with adultery, (c) marriage with another woman with adultery, (d) rape, sodomy or bestiality, (e) adultery coupled with such cruelty as without adultery would have entitled her to a divorce, a *mensa et toro* (a system of divorce created by Roman Church equivalent to judicial separation on the grounds of adultery, perverse practices, cruelty, heresy and apostasy) and (f) adultery coupled with desertion without reasonable excuse for two years or upwards.

As regards Muslims, the marriages are governed by the Mohammadan law prevalent in the country. As regards divorce, i.e. *talaq,* a Muslim wife has a much restricted right to dissolve her marriage. Unwritten and traditional law tried to ameliorate her position by permiting her to seek dissolution under the following forms : (a) *Talaq-i-Tafwid* : This is a form of delegated divorce. According to this, the husband delegates his right of divorce in a marriage contract which may stipulate that, *inter alia,* on his taking another wife, the first wife has a right to divorce him. (b) *Khul* : This is a dissolution by an agreement between the parties to the marriage on the wife's giving some consideration to the husband for her release from the marriage tie. The terms are a matter of bargain and usually take the form of the wife giving up her *mehr* or a portion thereof. (c) *Mubaraat* : This is a divorce by mutual consent.

Further by the Dissolution of Muslim Marriages Act, 1939, a Muslim wife has been given the right to dissolve the marriage on these grounds : (1) the whereabouts of the husband have not been known for a period of four years, (2) husband is not maintaining

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her for a period of two years, (3) imprisonment of husband for a period of seven years or upwards, (4) failure on the part of the husband to perform his marital obligations, without a reasonable cause, for a period of three years, (5) impotency of husband, (6) insanity for a period of two years, (7) suffering from leprosy or virulent venereal disease, (8) the marriage took place before she attained the age of 15 and such marriage not consummated, and (9) cruelty.

The Parsi Marriage and Divorce Act, 1936, governs the matrimonial relations of the Parsis. The word Parsi is defined in the Act as Parsi Zoroastrian. A Zoroastrian is a person who professes the Zoroastrian religion. The word Parsi has a racial significance. Every marriage as well as divorce under this Act is required to be registered in accordance with the procedure prescribed in the Act. However, failure to fulfil the requirements in that behalf does not make the marriage invalid. The Act provides for monogamy.

As regards the matrimonial laws of Jews, there is no codified law in India. Even today, they are governed by their religious laws. The Jews regard marriage not as a civil contract but as relation between two persons involving very sacred duties. Marriage can be dissolved through the courts on grounds of adultery or cruelty. The marriages are monogamous.

As regards personal laws relating to minority communities, it has been the policy of the government to encourage reforms therein only on the initiative of those communities.

Child Marriage

The Child Marriage Restraint Act, 1929, as amended in 1978, now provides that the marriage age for male will be 21 and that for female 18. This amendment has been brought into force with effect from 1 October 1978.

Adoption

Although there is no general law of adoption, yet it is permitted by a statute amongst the Hindus and by custom amongst a few numerically insignificant categories of persons. Since adoption is the legal affiliation of a child, it forms the subject-matter of personal law. Muslims, Christians and Parsis have no adoption laws and have to approach the court under the Guardians and Wards Act, 1890. Muslims, Christians and Parsis can take a child under the said Act only under foster care. Once a child under the foster care becomes major, he is free to break away all his connections. Besides, such a child does not have the legal right of inheritance.

Foreigners who want to adopt Indian children have to approach the court under the aforesaid Act. In case the court has given permission for the child to be taken out of the country, adoption according to a foreign law (i.e. law applicable to guardian), takes place outside the country.

The Hindu law relating to adoption has been amended and codified into the Hindu Adoptions and Maintenance Act, 1956, under which a male or female Hindu having legal capacity can take a son or daughter in adoption.

Guardianship

In dealing with the question of guardianship of a minor child, as in other spheres of family law, there is no uniform law. Three distinct legal systems are prevalent, that is to say, the Hindu law, the Muslim law and the Guardians and Wards Act, 1890.

A guardian may be a natural guardian, testamentary guardian or

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a guardian appointed by the court. In deciding the question of guardianship, two distinct things have to be taken into account—the person of the minor and his property. Often the same person is not entrusted with both.

The Hindu Minority and Guardianship Act, 1956, has codified the laws of the Hindus relating to minority and guardianship. As in the case of uncodified law it has upheld the superior right of the father. It lays down that a child is a minor till the age of 18. The natural guardian for both boys and unmarried girls is first the father and after him the mother. The prior right of the mother is recognised only to the custody of children below five. In the case of illegitimate children, the mother has a better claim than the putative father. The Act makes no distinction between the 'person' of the minor and his property and, therefore, guardianship implies control over both. The Act directs that in deciding the question of guardianship, the courts must take the welfare of the child as the paramount consideration.

Under the Muslim law, the father enjoys a dominant position. It also makes a distinction between guardianship and custody. For guardianship, which has usually reference to the guardianship of property, according to Sunnis, the father is preferred and in his absence his executor. If no executor has been appointed by the father, the guardianship passes on to the paternal grandfather. Among the Shias, the difference is that the father is regarded as the sole guardian but after his death it is the right of the grandfather to take over the responsibility and not that of the executor. Both the schools, however, agree that the father while alive is the sole guardian. The mother is not recognised as a natural guardian even after the death of the father.

As regards rights of the natural guardian, there is no doubt that father's right extends both to property and person. Even when the mother has the custody of the minor child, the father's general right of supervision and control remains. The father can, however, appoint the mother as a testamentary guardian. Thus though the mother may not be recognised as a natural guardian, there is no objection to her being appointed under the father's will.

Muslim law recognises that mother's right to custody of minor children (*Hizanat*) is an absolute right. Even the father cannot deprive her of it. Misconduct is the only condition which can deprive the mother of this right. As regards the age at which the right of the mother to custody terminates, the Shia school holds that the mother's right to *Hizanat* is only during the period of weaning which is over when the child has completed the age of two, whereas the *Hanafi* school extends the period till the minor son has reached the age of seven. In case of girls, the Shia law upholds the mother's right till the girl reaches seven and the *Hanafi* school till she attains puberty.

The Guardian and Wards Act, 1890, governs all communities. It clearly lays down that the father's right primary and no other person can be appointed unless the father is found unfit. This Act also provides that the court must bear in mind the welfare of the child.

Maintenance

The obligation of the husband to maintain the wife arises out of the status of the marriage. The right to maintenance forms a part of the personal law and to that extent it is not uniform, but uniform

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provisions are contained in Sections 125 to 128 of the Code of Criminal Procedure, 1973.

Under the Code of Criminal Procedure, the right of maintenance extends not only to wife, dependent children but also to indigent parents and to the divorced wives. The claim of the wife, etc., however, depends on the husband having sufficient means. The claim of maintenance for all dependent persons is limited to Rs 500 per month. The inclusion of the right of maintenance under the Code of Criminal Procedure has the great advantage of making the remedy both speedy and cheap. However, divorced wives who have received money payable under the customary personal law are not entitled to claim maintenance under the Criminal Procedure Code.

Under the Hindu law, the wife has an absolute right to claim maintenance from the husband. But she loses her right if she deviates herself from the path of chastity. Even a single lapse from chastity on her part may affect her right detrimentally. Her right to maintenance is codified in the Hindu Adoptions and Maintenance Act, 1956. In assessing the amount of maintenance, the court takes into account various factors like the position and status of the parties, the reasonable wants of the claimant and the obligations and liabilities of the husband. It also judges whether the wife is justified in living apart from the husband. The justifiable reasons are spelt out in the Act.

Maintenance *pendente lite* (pending the suit) and even the expenses of a matrimonial suit will be borne by either husband or the wife if the other spouse has no independent income for his or her support. The same principle will also govern the payment of permanent maintenance.

Under the Muslim law, the failure of the husband to maintain his wife for two years entitles her to get a divorce. The right to maintenance lasts only as long she remains a wife. If she is divorced, she loses her right of maintenance and is only entitled to it for three months i.e. the period of *iddat*. After this period, she has no further claim.

The Parsi Marriage and Divorce Act, 1936, recognises only the right of the wife to maintenance both alimony *pendente lite* as well as permanent alimony.

The maximum amount that can be decreed by the court as alimony during the time a matrimonial suit is pending in court is one-fifth of the husband's net income. In fixing the quantum as permanent maintenance, the court will determine what is just, bearing in mind the ability of the husband to pay, the wife's own assets and the conduct of the parties. The order will remain in force as long as the wife remains chaste and unmarried.

The Indian Divorce Act, 1869, governs the maintenance rights of a Christian wife. The provisions are the same as those under the Parsi law, and the same considerations are applied in granting maintenance, both alimony *pendente lite* as well as permanent maintenance.

Succession

In 1925, the Indian Succession Act was enacted. The object of the Act was to consolidate the large number of laws which were in existence at that time. The laws governing succession to Muslims and Hindus were excluded from the purview of the Act. While consolidating the law in respect of succession, two schemes, one relating to

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succession to the property of persons, like Indian Christians, Jews and persons married under the Special Marriage Act, 1955, and another relating to succession rights of Parsis were adopted.

In the first scheme, i.e., persons who were not Parsis, when a person dies intestate leaving a widow and lineal descendant, she would be entitled to a fixed share of one-third of the property and the lineal descendants shall be entitled to the remaining two-thirds. This law was amended subsequently with the object of improving the rights of the widow and it was provided that where the intestate dies leaving a widow and no lineal descendant and the net value of the estate does not exceed Rs 5,000 she would be entitled to the whole of his property. Where the net value of the estate exceeds Rs 5,000 she is entitled to a charge for the sum of Rs 5,000 with interest at four per cent till payment and in the residue she is entitled to her share. The Act imposes no restriction on the power of a person to will away his property.

Under the second scheme, the Act provides for Parsi intestate succession. A feature of the rule governing the Parsi intestate is that like the Hindu law and unlike the Muslim law, there are separate rules for the devolution of the property of male and female Parsi intestates. For example, if a male Parsi dies leaving a widow and children, the property will be divided so that the share of each son and widow will be double the share of each daughter. Further, when a male Parsi dies leaving one or both parents in addition to a widow and children, the property will be so divided that the father shall receive a share equal to half the share of a son and the mother will receive a share equal to half the share of a daughter.

The most remarkable features of the Hindu Succession Act, 1956, are the recognition of the right of women to inherit the property of an intestate equally with men and the abolition of the life estate of female heirs.

A vast majority of Muslims in India follow the *Hanafi* doctrines of Sunni law and the courts presumed that Muslims are governed by the *Hanafi* law unless it is established to the contrary. Though there are many features in common between the Shia *and* Sunni schools, there are differences in some respects. The Sunni law regards the Koranic verses of inheritance as an addendum to the pre-Islamic customary law and preserves the superior position of male agnates.

Unlike Hindu and Christian law, Muslim law restricts a person's right of testation. A Muslim can bequeath only one-third of his estate. A bequest to a stranger is valid without the consent of heirs if it does not exceed a third of the estate, but a bequest to a heir without the consent of other heirs is invalid. The consent of heirs to a bequest must be secured after the succession has opened and any consent given to a bequest during the life time of the testator can be retracted after his death. The Shia law allows the Muslims the freedom of bequest within the disposable third.

LEGAL AID TO THE POOR

The fundamental entitlement of legal aid is set out in Article 14 of the Constitution which enjoins the state not to deny to any person equality before the law or the equal protection of laws. Article 21 forbids the state to deprive any person of his life or personal liberty except according to procedure established by law. Article 39(A) further envisages that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities.

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Government being anxious that comprehensive legal aid schemes should be formulated and implemented in the country, constituted a high power committee under the chairmanship of Justice P. N. Bhagwati, Judge of the Supreme Court in September 1980. The Committee has formulated a model scheme for adoption by the states and union territories. The Legal Aid and Advice Boards have been set up in accordance with model scheme in Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Meghalaya, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and union territories of Delhi and Pondicherry. The Supreme Court Legal Aid Committee has been constituted with Justice D. A. Desai as chairman for dispensing legal aid in cases coming before the Supreme Court.

POLICE AND PRISONS

POLICE

The police force in the country is enjoined with the responsibility of maintenance of public order and prevention and detection of crimes. Public order and police being state subjects under the Constitution, police in India is maintained and controlled by the states.

The head of police force in a state is the Inspector General of Police/Director General of Police. The state is divided into convenient territorial divisions called 'Ranges' and each police range is under the administrative control of a Deputy Inspector General of Police. A number of districts constitute the Range. The district police is further subdivided into police divisions, circles and police stations. Besides civil police, the states also maintain their own armed police and have got separate intelligence branches, crime branches, etc.

The police set up in big cities like Delhi, Calcutta, Bombay, Madras Bangalore, Hyderabad, Ahmedabad and Nagpur is directly under a Commissioner of Police, who enjoys magisterial powers.

All senior police posts in various states are included in the state Indian Police Service (IPS) cadres to which recruitment is made on an all-India basis. Recruitment, promotion and cadre control in respect of the lower posts from police constables up to Deputy Superintendent of Police are done by the state governments themselves.

The Central Government maintains a number of central forces, which are in the nature of other armed forces of the union. Besides the Central Bureau of Intelligence (IB), Central Bureau of Investigation (CBI), a number of institutions for the training of police officers and for scientific or technical assistance in the investigation and detection of crimes are maintained by the Central Government.

Border Security Force

The Border Security Force (BSF), which was raised in 1965 is charged with the task of maintaining permanent vigilance on India's international borders, especially along Pakistan and Bangladesh. Its statutory functions are: (1) to promote a sense of security among the people living in the border areas; (2) to prevent trans-border crimes, unauthorised entry into or exist from the territory of India; and (3) to prevent smuggling and any other illegal activity. In addition, the Force during the period of war has a supplementary role with the Army and functions directly under the operational control of the Army. Being an armed force, BSF units are called upon to undertake various internal security duties and are also employed in aid to civil administration.

The Force headquarters, located in Delhi, is headed by a Director-

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General. It maintains adequate liaison with other forces operating on the border areas like customs, revenue intelligence and local police authorities. Maintenance of boundary pillars is an additional task which is undertaken in co-operation with Survey of India.

The Force has five major training institutions, namely, (1) BSF Academy at Tekanpur which undertakes the training of recruits-NCOs and officers, both initial and advanced training, (2) Training Centre and School at Hazaribagh undertakes training and specialises in jungle training, (3) Central School of Weapons and Tactics at Indore, (4) Signal Training School at New Delhi and (5) Central School of Mechanical Transport at Saugar.

The Force has also set up a factory at Tekanpur for manufacturing tear smoke shells and grenades to meet the requirements of various police forces in the country. This tear smoke unit manufactures long range and short range shells and two types of smoke grenades and its present annual production is 50,000 munitions. All the tear smoke munitions required in the country are idigenously met by this unit.

Home Guards

Home Guards is a voluntary force first raised in India in December 1946, to assist the police in controlling civil disturbances and communal riots. Subsequently, this concept of a voluntary citizens force was adopted by several states. In the wake of Chinese aggression in 1962, the Centre advised the states and union territories to merge their existing voluntary organisations in to one uniform voluntary force known as Home Guards.

The role of Home Guards is to serve as an auxiliary to the police in maintenance of law and order and help in maintaining internal security; help the community in any kind of emergency such as an air raid, fire, flood, cyclone, earthquake, epidemic and so on; help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections of society; participate in socio-economic and welfare activities and perform civil defence duties.

Home Guards are of two types—rural and urban. In border states, Border Wing Home Guards battalions have also been raised, who serve as an auxiliary to the security forces. The total authorised strength of Home Guards in the country is 5.16 lakh, against which the raised strength is 4,62,070. The organisation is now spread over all states/union territories except Kerela, Nagaland, Arunachal Pradesh and Lakshadweep.

The Home Guards are raised under the Home Guards Act of states/union territories. The Ministry of Home Affairs formulates the policy in respect of roles, target, raising, training, equipping, financing, establishment and other important matters, which are to be implemented by the states/union territories. The expenditure incurred by the state government on Home Guards according to the approved schemes is reimbursed by the Centre at 50 per cent in respect of all states except Assam, Manipur, Meghalaya, Sikkim and Tripura and five northern districts of West Bengal where cent per cent expenditure is met by the Centre. For the Border Wing Home Guards, the Central Government bears 75 per cent of expenditure in respect of Punjab, Gujarat and Rajasthan and cent per cent in respect of Assam, Meghalaya, Tripura and West Bengal. In Jammu and Kashmir, the Centre

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reimburses the expenditure at cent per cent subject to a ceiling of Rs 41 lakh per year.

Home Guards are being increasingly used by states/union territories to assist the police in maintenance of law and order, prevention of crime, anti-dacoity measures, border-patrolling, flood relief, prohibition, guarding vital plants, protection of forests, watch and ward duties, disaster relief, fire-fighting, supervision of elections and social welfare activities. In the event of national emergency, civil defence work will have first call on the services of Home Guards, who are trained for it.

Central Reserve Police Force

The Central Reserve Force was raised in 1939 and it was known as the Crown Representative's Police. After Independence, the Crown Representative's Police was renamed as the Central Reserve Police. Later the appellation "Force" was added to the name. It is headed by a Director General with headquarters in Delhi.

The primary task of the force is that of assisting the states in maintaining law and order throughout the country. During external aggression, part of the force is also deployed for duties under army operation.

Central Industrial Security Force

The Central Industrial Security Force was raised under an Act of Parliament in 1969 for the better protection and security of industrial undertakings, owned and controlled by the Central Government. The Force is headed by a Director General with headquarters in New Delhi. The Force has been deployed mostly in vital sectors such as steel plants, oil refineries, fertilizer plants, ports, space installations, atomic energy establishments, etc. For the administrative convenience and operational efficiency, the country has been divided into four zones namely, eastern, northern, southern and western. The Force, in each of the zones, functions under the operational and administrative supervision of a Deputy Inspector General. In addition, the security set-up of major industrial undertakings is headed by a Deputy Inspector General.

Assam Rifles

The Assam Rifles has been assigned the following role : (i) protection and security of India's international border especially that of the sensitive spots; (ii) maintenance of law and order in the tribal areas of Arunachal Pradesh, Nagaland, Mizoram, Manipur and Tripura, and (iii) assistance to the state police of Arunachal Pradesh, Nagaland, Mizoram, Manipur and Tripura.

The Force is headed by a Director General with headquarters at Shillong. Working under the operational control of the army, it rendered assistance in the maintenance of internal security in north-eastern region and helped ensure the security of international borders in the area of its deployment.

Central Bureau of Investigation

Created in April 1963, the Central Bureau of Investigation (CBI) undertakes investigation of important cases concerning public servants in the employ of the Central Government and its corporate undertakings and also cases having inter-state or international ramifications. It is headed by a Director. During 1982, the CBI took up 1,201 cases for investigation involving 1,076 gazetted officers, 740 other public servants and 683 private persons. As a result of investigations finalised by the CBI during the year, 490 cases involving 157 public servants

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of gazetted status, 335 other public servants and 478 private persons were prosecuted in the courts of law. During 1982, the CBI indexed 3,003 new criminals involved in international crimes, 5,647 new criminals involved in inter-state crimes and 11,990 new items of property involved in these offences. The Bureau also received for verification, 751 finger prints from various foreign crime bureaux besides 831 Interpol notices for circulation to various enforcement agencies in the country.

Intelligence Bureau

The primary function of the Intelligence Bureau is to collect, collate, assess and disseminate intelligence relating to national security and other matters affecting the security of the country. The Intelligence Bureau liaises with departments of the Government of India for this purpose and also coordinates the activities of the special branches of the criminal investigation/intelligence departments in the states. It is headed by a Director.

National Police Academy

The Sardar Vallabhbhai Patel National Police Academy, Hyderabad, was established in 1948 to impart basic training to Indian Police Service probationary officers. In addition, the Academy also conducts thrice in a year a 14-week re-orientation course for senior officers of eight to ten years seniority. A top management development programme of two weeks' duration for officers of the level of Deputy Inspector General of Police is also being organised every year in the form of a seminar. A one-month basic terminal training course for IPS officers who have completed one-year training in the field is conducted in addition to the above programme. Besides, the Academy also conducts seminars and symposia on subjects of police interest.

Institute of Criminology & Forensic Science

The Institute of Criminology and Forensic Science was established in 1972 mainly to conduct research, impart in-service training to the functionaries of the criminal justice system, and to organise post-graduate courses in criminology and forensic science. The Institute also undertakes research projects.

PRISONS

The subject "prisons, reformatories and other institutions of like nature, persons detained therein and arrangement with other states for the use of prisons and other institutions" is included in the State List of the Seventh Schedule to the Constitution. The administration and management of prisons including maintenance and up-keep of prisoners are regulated under the Prisons Act, 1894, the Prisoners Act, 1900, and the Transfer of Prisoners Act, 1950, as adopted by states and amended from time to time. The day-to-day administration of prisons is carried on in accordance with the rules framed under these Acts and incorporated in prison manuals of the respective states.

There are different types of jails—central jails, district jails, sub-jails, special jails, open jails, institutions for youthful offenders and woman jails—in the country. The administrative set up of jails in states is headed by the Inspector General of Prisons.

Prison Reforms

Even though prison administration has been a subject matter of close study and deliberation since the dawn of Independence, during the last few years it has evoked an unprecedented concern and awareness

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on the part of the Central and state governments. The report of the Indian Jails Committee (1920), which defined the aim of prison administration as 'prevention of further crime and restoration of the criminal to society as a reformed character', set the trend for prison reform in the country. Thereafter several experts and expert bodies i.e., Dr. W. C. Reckless, a UN expert on criminology and correctional administration (1951-52), the All India Jail Manual Committee (1957-59) and the Working Group on Prisons (1972-73) studied the problems facing prison administration in the country and recommended concrete steps to improve the living conditions in prisons and streamline the prison administration. The All India Jail Manual Committee brought out a model prison manual containing elaborate standards and guidelines aimed at transforming jails into reformatory centres.

In April 1979, a conference of Chief Secretaries made a number of recommendations to reduce over-crowding in jails. These included establishment of an effective system of regular review of cases of undertrials, appointment of part-time or whole-time law officers in jails to enable undertrials to contest their cases in courts, setting up of new courts and amendment of the law relating to the transfer of prisoners. The other recommendations made by the conference were: creation of separate facilities for the care, treatment and rehabilitation of women offenders, segregation of juveniles, improving the system of inspection and supervision in jails so as to avoid indiscipline and malpractices, strengthening of training facilities for jail staff, work programme for all able-bodied prisoners, setting up of state and national boards of visitors and revision of state jail manuals on the lines of the model prison manual.

The matters relating to improvement in prison administration were discussed at a subsequent conference held on 3 April 1980. The conference made various recommendations which included : undertaking crash programmes by states for providing flush/septic tank latrines and adequate drinking water facilities, change in the approach of the prison administration to the problems of prisoners and introduction of initial and in-service training to prison personnel, segregation of women and youthful offenders and organisation of programmes for adult literacy.

To help state governments in their efforts to undertake jail reforms, the Central Government formulated a scheme in 1977 to give financial assistance for prison reforms. The areas chosen for priority attention were renovation of prison buildings, modernisation of prison industries and agriculture, construction of residential accommodation for prison staff, provision of scientific and technological facilities in prisons and equipment for training of prison personnel. Stress was laid more on the improvement of living conditions and standards of maintenance of prisoners.

The Seventh Finance Commission has recommended allocation of Rs 48.31 crore to 11 states in the form of grants-in-aid for five years (1979-84) for upgradation of standards of jail administration including upkeep of prisoners. Priority has been accorded by the Commission to ensure adequate direct expenditure on food, clothing and medicines for prisoners, to improve basic amenities like water supply, sanitary facilities, electrification, etc., and to develop additional jail capacity in states.

The Central Government is actively pursuing with the state

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Governments the revision of their respective jail manuals on the basis of the guidelines contained in the model prison manual. The recommendations made by the conference of Chief Secretaries of states are also being processed in consultation with them. A Committee on Jail Reforms was set up on 25 July 1980, under the Chairmanship of Justice A. N. Mulla, to inquire into various aspects of prison administration in the country and to make necessary recommendations for its improvement. The Committee submitted its first report on the Central Jail, Tihar (Delhi), in December 1980 and its final report in March 1983. Recommendations made by the Mulla Committee regarding Tihar Jail have already been taken up for implementation. The recommendations of the Mulla Committee in their final report are under examination by the Ministry of Home Affairs in consultation with the state governments.

With regard to various aspects of prison reforms, the National Institute of Social Defence, Ministry of Social Welfare, Government of India, provides technical assistance and consultancy to the Central and state governments.

LAWS OF PARLIAMENT

In 1982, seventy-two Bills were enacted as laws. A list of these Bills is furnished in table 24.2. The scope and purpose of some of the laws enacted during the year are given below :

The African Development Fund Act, 1982—provides to implement the African Development Fund Agreement.

The Sugar Cess Act, 1982—provides for the imposition of a cess on sugar for the development of sugar industry.

The Sugar Development Fund Act, 1982—provides for the financing of activities for development of sugar industry.

The Ear Drums and Ear Bones (Authority for Use for Therapeutic Purposes) Act, 1982—provides for the use of ears of deceased persons for therapeutic purposes.

The Eyes (Authority for Use for Therapeutic Purposes) Act, 1982—provides for the use of eyes of deceased persons for therapeutic purposes and for matters connected therewith.

The Special Courts (Repeal) Act, 1982—repeals the Special Courts Act, 1979.

The Chit Funds Act, 1982—provides for the regulation of chit funds.

The Governors (Emoluments, Allowances and Privileges) Act, 1982—determines the emoluments, allowances and privileges of Governors.

The National Waterway (Allahabad-Haldia Stretch of the Ganga-Bhagirathi-Hooghly River) Act, 1982—provides for the declaration of the Allahabad-Haldia stretch of the Ganga-Bhagirathi-Hooghly river to be a national waterway and also provides for the regulation and development of that river for purposes of shipping and navigation on the said waterway.

The Motor Vehicles (Amendment) Act, 1982—provides, *inter-alia,* for liability to pay compensation in certain cases on the principle of no fault and to provide for the right to claim compensation for death or permanent disablement.

The Anti-Hijacking Act, 1982—gives effect to the Convention for the Suppression of Unlawful Seizure of Aircraft.

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The Suppression of Unlawful Acts Against Safety of Civil Aviation Act, 1982—gives effect to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation.

The Constitution (Forty-sixth Amendment) Act, 1982—amends the Constitution to provide *inter-alia* for the levy and collection by the Government of India for assignment to the states, of a tax on the consignment of goods where such consignment takes place in the course of inter-state trade or commerce and for the insertion of a new definition of "tax on the sale or purchase of goods" to include, among other things, a tax on the transfer, otherwise than in pursuance of a contract, of property in any goods for cash, etc., a tax on the transfer of property in goods involved in the execution of a works contract, a tax on the delivery of goods on hire-purchase or any system of payment by instalments and a tax on the supply, by way of or as part of any service or in any other manner whatsoever, of goods being food or any other article of human consumption or any drink where such supply or service is for cash, deferred payment of other valuable consideration.

TABLE 24·2
LAWS ENACTED BY PARLIAMENT DURING 1982

Sl. No.	Bill	Initiating Chamber	When introduced	When passed by the originating Chamber	When passed/returned by other Chamber	Date of President's assent
1	2	3	4	5	6	7
1.	The African Development Fund Bill, 1982	LS	30 Nov. 81	23 Dec. 81 1 Mar. 82[1]	23 Feb. 81	4 Mar. 82
2.	The Industrial Finance Corporation (Amendment) Bill, 1982 . .	LS	19 Feb. 82	23 Feb. 82	2 Mar. 82	8 Mar. 82
3.	The Sugar Cess Bill, 1982 .	LS	17 Dec. 81	4 Mar. 82	9 Mar. 82	19 Mar. 82
4.	The Sugar Development Fund Bill, 1982 .	LS	17 Dec. 81	4 Mar. 82	9 Mar. 82	19 Mar. 82
5.	The Appropriation (Vote on Account) Bill, 1982 . .	LS	16 Mar. 82	16 Mar. 82	18 Mar. 82	23 Mar. 82
6.	The Appropriation Bill, 1982	LS	16 Mar. 82	16 Mar. 82	18 Mar. 82	23 Mar. 82
7.	The Appropriation (Railways) Bill, 1982	LS	17 Mar. 82	17 Mar. 82	24 Mar. 82	28 Mar. 82
8.	The Appropriation (Railways) No. 2 Bill, 1982	LS	17 Mar. 82	17 Mar. 82	24 Mar. 82	28 Mar. 82
9.	The Kerala Appropriation (Vote on Account) Bill, 1982	LS	27 Mar. 82	27 Mar. 82	30 Mar. 82	31 Mar. 82
10.	The Kerala Appropriation Bill, 1982 . .	LS	27 Mar. 82	27 Mar. 82	30 Mar. 82	31 Mar. 82

[1]Amendments made by Rajya Sabha on 23 Feb. 1982 were considered and agreed to by Lok Sabha on 1 Mar. 1982.

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1	2	3	4	5	6	7
11.	The Assam Appropriation (Vote on Account) Bill, 1982	LS	27 Mar. 82	27 Mar. 82	30 Mar. 82	31 Mar. 82
12.	The Assam Appropriation Bill, 1982	LS	27 Mar. 82	27 Mar. 82	30 Mar. 82	31 Mar. 82
13.	The Central Silk Board (Amendment) Bill, 1982	LS	2 Dec. 81	18 Mar. 82	31 Mar. 82	14 Apr. 82
14.	The Finance Bill, 1982	LS	27 Feb. 82	27 Apr. 82	5 May 82	11 May 82
15.	The Customs Tariff (Amendment) Bill, 1982	LS	15 Apr. 82	27 Apr. 82	5 May 82	11 May 82
16.	The Indian Railways (Amendment) Bill, 1982	RS	14 May 79	25 Mar. 82	27 Apr. 82	11 May 82
17.	The Major Port Trusts (Amendment) Bill, 1982	RS	14 Dec. 81	22 Mar. 82	28 Apr. 82	11 May 82
18.	The Industrial Employment (Standing Orders) Amendment Bill, 1982	RS	21 Dec. 81	25 Mar. 82	30 Apr. 82	11 May 82
19.	The Appropriation (No. 2) Bill, 1982	LS	21 Apr. 82	21 Apr. 82	3 May 82	11 May 82
20.	The Pensions' (Amendment) Bill, 1982	RS	18 Aug. 81	23 Nov. 81 4 May 82[1]	29 Apr. 82	18 May 82
21.	The Architects (Amendment) Bill, 1982	RS	20 Nov. 80	3 Dec. 80 3 May 82[2]	29 Apr. 82	18 May 82
22.	The Pharmacy (Amendment) Bill, 1982	RS	7 Sept. 81	1 Dec. 81 5 May 82[3]	29 Apr. 82	18 May 82
23.	The Wild Life (Protection) Amendment Bill, 1982	LS	22 Dec. 81	28 Apr. 82	6 May 82	21 May 82
24.	The Air Corporations (Amendment) Bill, 1982	RS	27 Aug. 81	30 Nov. 81 6 May 82[4]	29 Apr. 82	21 May 82
25.	The Assam State Legislature (Delegation of Powers) Bill, 1982	LS	29 Apr. 82	30 Apr. 82	6 May 82	21 May 82

[1]Amendments made by Lok Sabha on 29 April 1982 were considered and agreed to by Rajya Sabha on 4 May 1982.

[2]Amendments made by Lok Sabha on 29 April 1982 were considered and agreed to by Rajya Sabha on 3 May 1982.

[3]Amendments made by Lok Sabha on 29 April 1982 were considered and agreed to by Rajya Sabha on 5 May 1982.

[4]Amendments made by Lok Sabha on 29 April 1982 were considered and agreed to by Rajya Sabha on 6 May 1982.

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1	2	3	4	5	6	7
26.	The Prevention of Cruelty to Animals (Amendment) Bill, 1982	LS	30 Nov. 81	29 Apr. 82	14 July 82	30 July 82
27.	The Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities (Amendment) Bill, 1982	RS	23 Feb. 82	13 July 82	2 Aug. 82	5 Aug. 82
28.	The Ear Drums and Ear Bones (Authority for Use for Therapeutic Purposes) Bill, 1982	LS	1 Aug. 80	15 July 82	27 July 82	7 Aug. 82
29.	The Eyes (Authority for use for Therapeutic Purposes) Bill, 1982 . .	LS	1 Dec. 80	14 July 82	27 July 82	7 Aug 82
30.	The Monopolies and Restrictive Trade Practices (Amendment) Bill, 1982	LS	27 Apr. 82	20 July 82	28 July 82	7 Aug 82
31.	The Estate Duty (Amendment) Bill, 1982	LS	13 July 82	27 July 82	2 Aug. 82	10 Aug 82
32.	The Appropriation (Railways) No. 3 Bill, 1982	LS	2 Aug. 82	2 Aug. 82	5 Aug. 82	10 Aug 82
33.	The Appropriation (No. 3) Bill, 1982	LS	2 Aug. 82	2 Aug. 82	5 Aug. 82	10 Aug 82
34.	The Special Courts (Repeal) Bill, 1982	RS	24 Dec. 80	19 Aug. 81 5 Aug. 82[1]	29 July 82	17 Aug 82
35.	The Salary, Allowances and Pension of Members of Parliament (Amendment) Bill, 1982	LS	13 July 82	21 July 82	3 Aug. 82	17 Aug. 82
36.	The Chaparmukh-Silghat Railway Line and the Katakhal-Lalabazar Railway Line (Nationalisation) Bill, 1982 . .	LS	7 Sept. 81	21 July 82	3 Aug. 82	17 Aug. 82
37.	The Assam Appropriation (No. 2) Bill, 1982 . .	LS	5 Aug. 82	5 Aug. 82	9 Aug. 82	18 Aug. 82
38.	The Payment of Wages (Amendment) Bill, 1982	RS	6 May 82	19 July 82	11 Aug. 82	18 Aug. 82

[1]Amendments made by Lok Sabha on 29 July 1982 were considered and agreed to by Rajya Sabha on 5 Aug. 1982.

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1	2	3	4	5	6	7
39.	The Public Wakfs (Extension of Limitation) (Delhi Amendment) Bill, 1982	RS	22 Dec. 81	15 July 82	7 Aug. 82	19 Aug. 82
40.	The Chit Funds Bill, 1982	LS	20 Nov. 80	19 July 82 11 Aug. 82[1]	7 Aug. 82	19 Aug. 82
41.	The Metro Railways (Construction of Works) Amendment Bill, 1982	LS	22 Dec. 81	21 July 82	7 Aug. 82	21 Aug. 82
42.	The East Punjab Urban Rent Restriction (Chandigarh Amendment) Bill, 1982	LS	3 Aug. 82	6 Aug. 82	10 Aug. 82	21 Aug. 82
43.	The Governors (Emoluments, Allowances and Privileges) Bill, 1982	LS	21 Dec. 81	28 July 82	7 Aug. 82	28 Aug. 82
44.	The Iron Ore Mines and Manganese Ore Mines Labour Welfare Cess (Amendment) Bill, 1982	LS	11 Mar. 82	7 Aug. 82	11 Aug. 82	28 Aug. 82
45.	The Iron Ore Mines and Manganese Ore Mines Labour Welfare Fund (Amendment) Bill, 1982	LS	11 Mar. 82	7 Aug. 82	11 Aug. 82	28 Aug. 82
46.	The Industrial Disputes (Amendment) Bill, 1982	LS	23 Apr. 82	9 Aug. 82	11 Aug. 82	31 Aug. 82
47.	The Motor Vehicles (Amendment) Bill, 1982	LS	9 Aug. 82	10 Aug. 82	11 Aug. 82	31 Aug. 82
48.	The Navy (Amendment) Bill, 1982	RS	16 Mar. 82	20 July 82	4 Oct. 82	16 Oct. 82
49.	The National Waterway (Allahabad Haldia Stretch of the Ganga-Bhagirathi Hooghly River) Bill, 1982	RS	6 May 82	27 July 82	6 Oct. 82	18 Oct. 82
50.	The Amritsar Oil Works (Acquisition and Transfer of Undertakings) Bill, 1982	LS	4 Oct. 82	5 Oct. 82	12 Oct. 82	19 Oct. 82
51.	The Contingency Fund of India (Amendment) Bill, 1982	LS	19 July 82	4 Oct. 82	16 Oct. 82	21 Oct. 82

[1] Amendments made by Rajya Sabha on 7 Aug. 1982 were considered and agreed to by Lok Sabha on 11 Aug. 1982.

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1	2	3	4	5	6	7
52.	The Customs Tariff (Second Amendment) Bill, 1982	LS	20 July 82	5 Oct. 82	16 Oct. 82	21 Oct. 82
53.	The Food Corporations (Amendment) Bill, 1982	LS	30 Apr. 82	26 July 82	6 Oct. 82	21 Oct. 82
54.	The Rubber (Amendment) Bill, 1982	RS	3 May 82	26 July 82	16 Oct. 82	22 Oct. 82
55.	The Powers-of-Attorney (Amendment) Bill, 1982	RS	14 July 82	7 Oct. 82	16 Oct. 82	22 Oct. 82
56.	The Charitable Endowments (Amendment) Bill, 1982	LS	13 July 82	4 Oct. 82	16 Oct. 82	25 Oct. 82
57.	The Sugar Cess (Amendment) Bill, 1982	LS	14 Oct. 82	16 Oct. 82	19 Oct. 82	25 Oct. 82
58.	The Central Excise Laws (Amendment and Validation) Bill, 1982	LS	16 Oct. 82	18 Oct. 82	20 Oct. 82	25 Oct. 82
59.	The Assam Appropriation (No. 3) Bill, 1982 . .	LS	18 Oct. 82	18 Oct. 82	21 Oct. 82	25 Oct. 82
60.	The Appropriation (No. 4) Bill, 1982 . .	LS	19 Oct. 82	19 Oct. 82	21 Oct. 82	25 Oct. 82
61.	The Salary, Allowances and Pension of Members of Parliament (Second Amendment) Bill, 1982. .	LS	2 Nov. 82	3 Nov. 82	4 Nov. 82	6 Nov. 82
62.	The State Bank of Sikkim (Acquisition of Shares) and Miscellaneous Provisions Bill, 1982	LS	13 Aug. 82	6 Oct. 82	18 Oct. 82	6 Nov. 82
63.	The Road Transport Corporations (Amendment) Bill, 1982 . .	LS	24 Dec. 81	12 Oct. 82	16 Oct. 82	6 Nov. 82
64.	The Sugar Development Fund (Amendment) Bill, 1982	LS	14 Oct. 82	16 Oct. 82	19 Oct. 82	6 Nov. 82
65.	The Anti-Hijacking Bill, 1982 . .	RS	22 Oct. 82	2 Nov. 82	5 Nov. 82	6 Nov. 82
66.	The Suppression of Unlawful Acts Against Safety of Civil Aviation Bill, 1982	RS	22 Oct. 82	2 Nov. 82	5 Nov. 82	6 Nov. 82

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1	2	3	4	5	6	7
67.	The International Monetary Fund and Bank (Amendment) Bill, 1982	LS	20 July 82	12 Oct. 82	19 Oct. 82	9 Nov. 82
68.	The Drugs and Cosmetics (Amendment) Bill, 1982	LS	30 Apr. 82	11 Oct. 82	16 Oct. 82	13 Nov. 82
69.	The Sales Promotion Employees (Conditions of Service) Amendment Bill, 1982	RS	5 Mar. 79	11 Dec. 80 2 Nov. 82[1]	16 Oct. 82	13 Nov. 82
70.	The Limestone and Dolomite Mines Labour Welfare Fund (Amendment) Bill, 1982	LS	5 Mar. 82	16 Oct. 82	3 Nov. 82	13 Nov. 82
71.	The Andhra Scientific Company Limited (Acquisition and Transfer of Undertakings) Bill, 1982	LS	16 Oct. 82	20 Oct. 82	3 Nov. 82	13 Nov. 82
72.	The Industrial Development Bank of India (Amendment) Bill, 1982	LS	14 Oct. 82	20 Oct. 82	4 Nov. 82	13 Nov. 82

[1] Amendments made by Lok Sabha on 16 Oct. 1982 were considered and agreed to by Rajya Sabha on 2 Nov. 1982.

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25 SPORTS AND GAMES

The Central Government, in order to promote sports activities in the country, created an independent Department of Sports in 1982 under the charge of a Cabinet Minister. Another important development was the successful holding of Ninth Asian Games in the country. The infrastructure provided for Ninth Asian Games have been commended by the President of the International Olympic Committee. To further boost the sports activities in the country, and to manage the stadia and other facilities created for Asiad 1982, the Central Government has decided to set up an autonomous body, to be known as Sports Development Authority of India, under the Department of Sports. Besides, the 86th session of the International Olympic Committee (IOC) was held in March 1983 for the first time in India and Prime Minister Indira Gandhi was conferred Olympic Gold Order by IOC President Anatonio Samaranch.

NINTH ASIAN GAMES

India is a founder-member of the Asian Games Federation. The first Asian Games were held in New Delhi in 1951 in which 11 countries participated and competitions in six events were held with total participation of 489 persons. In order to honour the commitment made by the Indian Olympic Association (IOA) with the prior approval of the Government of India in 1976 and reiterated in 1978, the Ninth Asian Games were held in India from 19 November to 4 December 1982 with financial support from the Government.

The holding of Ninth Asian Games successfully is a landmark in history of sports in the country. Apart from the creation of sports facilities and related infrastructure of international standard within a short period of two years, the country demonstrated its capacity for organising big sports events. This spectacular achievement was made possible, because of the enormous interest taken by the general public in the Games. This has created a very favourable climate for the development of sports in the country.

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Sports Facilities

For the holding of Asian Games sports facilities were provided by renovation of existing stadia in Delhi to bring them up to international standars and by constructing new stadia. The existing stadia renovated were : National Stadium, Dr. Ambedkar Stadium, Shivaji Stadium, Chhatrasaal Stadium, Talkatora Indoor Stadium, Delhi Golf Club Grounds, Delhi University Grounds, Harbaksh Stadium and Nicholson Ranges and Karnail Singh Stadium. New stadia constructed in Delhi were Jawaharlal Nehru Stadium, Indraprastha Indoor Stadium, Yamuna Velodrome, Talkatora Swimming Pool, Tughlakabad Shooting Ranges and Lawn Tennis Stadium at Hauz Khas.

For the first time in the country, astro turf for hockey was laid. Similarly, a synthetic track for holding of athletic events was provided. Again for the first time, synthetic surfaces were laid for volleyball and handball and gymnastics was held for the first time on a proper podium indigenously manufactured.

Sophisticated electronic score boards and audio-communication systems were installed in most of the stadia. Based on a computerised programme, floodlighting has been installed in Indraprastha Stadium and Talkatora Indoor Stadium. In the Jawaharlal Nehru Stadium floodlighting for holding football and athletics has been installed. All the stadia are fully equipped for international level sports competitions.

The success of the holding of the Games and the adequacy of the infrastructure was commended by the President of the International Olympic Committee, who during his visits to India stated that the sports installations now available in Delhi were some of the best in the world.

The Indian Olympic Association set up a Special Organising Committee (SOC) for the organisation of the Games. The Committee was originally headed by Vidya Charan Shukla, and from March 1981 by Buta Singh. The SOC was provided full financial and technical support by the Government of India. The Government set up a Steering Committee under the Chairmanship of Minister of Education, to ensure timely and economical completion of all infrastructure and arrangements required for the successful holding of the Games.

Thirty-three Asian countries participated in 21 disciplines with a total of 4,595 participants. Out of 21 disciplines 4 were included for the first time in Asian Games. They were : equestrian, golf, hand ball and rowing. Of these, 19 Games were held in Delhi and rowing at Ramgarh Lake at Jaipur and yatching in Arabian Sea, Bombay. Besides, two demonstration games *viz. kabaddi* and *sepak takraw* (Malaysian national game) were also held.

In the Eighth Asian Games, India had ranked sixth and its total medal tally was 28. In the Ninth Asian Games India ranked fifth with a medal tally of 57. She secured 13 gold, 19 silver and 25 bronze medals in various events. Indian athletics created 4 new Asian records, bettered 8 other records and created 10 national records. During the Games, 101 existing records were broken. China secured first position with total 153 medals including 61 gold. Japan was second with 153 medals including 57 gold. South Korea was third with 93 medals including 28 gold and North Korea was fourth with 56 medals including 17 gold.

For the first time in the history of sports in the country, 5 Padma Bhushan awards were given to persons working in the field of promotion of sports in general and those concerned with the successful hold-

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ing of the Ninth Asian Games in particular. They were : (i) Raja Bhalendra Singh, President, Indian Olympic Association, (ii) Umrao Singh, Vice President of the Special Organising Committee of the Asian Games, (iii) K. Sankaran Nair, Secretary of the Special Organising Committee and its Vice Chairman (iv) K. T. Satarwala and (v) Lt. General Adil Meherji Sethna. Similarly, 13 Padma Shri awards were also given to eminent sportsmen and women sports promoters and administrators.

Besides Asian Games, the 86th session of the International Olympic Committee was also held in India from 21 March to 28 March 1983 for the first time.

National Sports Policy

The draft national sports policy submitted by the All India Council of Sports (AICS) to Government was circulated among the state governments, national sports federations and other concerned agencies for their comments. The reconstituted AICS is giving a second look to the draft in the context of the comments received from the concerned agencies.

The Central Government's programme for promotion of sports and games continues to be implemented within the broad policy framework of the national policy on education as adopted by the Parliament in 1968. The two-fold objective of the current programme of the Central Government is participation in the mainstream of the internationally current programmes of sports and games including promotion of country's traditional activities in this field.

The setting up of an independent Department of Sports at the Central level has been the most significant development during 1982 in the field of sports in the country.

All India Council of Sports

The All India Council of Sports was set up in 1954 as an apex national level body to advise the Central Government on matters pertaining to promotion of sports and games in the country. The Council was reconstituted in August 1982 with Vidya Charan Shukla, Member of Parliament, as its President. The membership of the reconstituted Council was raised from 21 to 26 to provide representation to outstanding sportsmen and women. The Central Government in consultation with the Council extends financial assistance to national sports federations/associations for visits of Indian teams abroad and vice-versa, for organising national championships at senior, junior and sub-junior levels and holding of coaching camps. Financial assistance is also provided on the advice of the Council to the state sports councils/state governments for developing physical facilities for sports and games and for promotion of sports coaching programmes.

National Coaching Scheme

The Netaji Subhas National Institute of Sports (NSNIS), Patiala has been entrusted with the responsibility of training high calibre coaches in various sports disciplines and also for the implementation of national coaching scheme through a countrywide network of regional sports coaching centres in collaboration with the state sports councils and/or state governments. The NSNIS, along with its South Centre located at Bangalore (estd. in 1975), offers regular training courses in various sports disciplines to train qualified coaches. Since its inception in 1961, the Institute has produced 5,800 coaches in various sports

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disciplines out of which 174 have been from foreign countries. The Institute is also implementing on agency basis the Central programme on national coaching scheme which has a cadre strength of 700 coaches offering specialised coaching facilities for the talented youngsters in sports and games through a countrywide network of 25 regional sports coaching centres. The Institute extends special coaching facilities to the Indian national teams prior to their participation in international sports events. During 1982, the Institute was actively associated with India's preparations for the Ninth Asian Games. In addition to organising special coaching camps for the Indian probables, the Institute was also entrusted with the job of procurement of sports equipment, locally as well as from abroad.

Another significant event in 1982, in so far as the NSNIS is concerned, was the formal commissioning of its East Centre at Calcutta by the President of India on the 23 January 1983 to coincide with the birthday of Netaji Subhas Chandra Bose. The West Bengal Government has developed, at its own cost, a campus of 16 hectares with the requisite infrastructure for the Centre and has placed the same at the disposal of the NSNIS. Regular training programmes in sports coaching have started at the East Centre.

The Institute also implements on agency basis the Central Government's programmes of rural sports tournaments, women sports festival, national talent search scholarship, etc.

Welfare Fund for Sportsmen

The national welfare fund for sportsmen constituted by the Government of India for giving financial assistance to outstanding sportsmen and women, who are no longer active in sports but are in indigent circumstances, came into existence during the 1982 with a contribution of rupees one lakh each from the Department of Sports and the NSNIS.

National Physical Fitness Programme

The national physical fitness programme (NPFP) was introduced in 1959 to popularise among the people the concept of physical fitness and also to arouse their enthusiasm for higher standards of physical fitness and achievements. The programme is being implemented in collaboration with the state governments/union territory administrations and certain other selected agencies. At the Central level the Lakshmibai National College of Physical Education (Gwalior), one of the two national institutes established by the Central Government in the field of physical education and sports, functions as the Central agency for implementation of this programme.

YOUTH SERVICES

The youth in India plays a key role in all spheres of our life. Ever since the attainment of the Independence, youth programmes and activities have been designed with a view to involving large selection of youth in nation building activities and to promote secularism, national integration, spirit of adventure and inculcate in their appreciation of India's rich and ancient cultural heritage. India's youth policy aims at promoting governmental and non-governmental efforts and the initiatives by youth itself in implementing programmes for the benefit of the youth and in harnessing their vast energy in nation-building activities.

National Service Scheme

Started in 1969 with a coverage of 40,000 students, the National Service Scheme (NSS) aims at promoting social-conciousness and

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sense of responsibility as well as sense of discipline and dignity of labour among college students during two years of their college studies. As part of the constructive involvement of student youth, during their vacation periods, large scale camping programmes are conducted in the course of which certain aspects of rural needs are covered, and at the end of the programme sizeable and durable assets for the community are created. In the past such special camping programmes have been organised under the themes of *Youth Against Famine, Youth Against Dirt and Disease, Youth For Afforestation and Tree-Plantation, Youth For Rural Reconstruction,* etc. From 1981-82 eco-development programmes have also been undertaken by NSS students. The NSS volunteers have also done commendable work during natural calamities by way of collection of funds, distribution of medicines and clothes and rendering help in rehabilitation of the victims. The scheme is implemented on a voluntary basis. During 1982-83 the coverage under the scheme was 5.50 lakh students.

Nehru Yuvak Kendra

The Nehru Yuvak Kendra (NYK) is an innovative multi-purpose institution established for the promotion and co-ordination of activities of non-student youth, mainly in the rural areas. The main aim of the scheme is to enable the non-student youth to act as the vanguard in the process of development in the rural areas and popularisation of nationally accepted objectives. In furtherance of these objectives, the Nehru Yuvak Kendras have been organising a variety of activities which include non-formal education, vocational training for self-employment, social service including work for better rural environment, sports and games and recreational and cultural activities. Apart from the enrichment in the contents of the programme and accretion in the functions of the Nehru Yuvak Kendras, their number has also increased more than threefold during the last ten years. As compared to 80 in 1972, 285 kendras have so far been sanctioned out of which 192 are already in operation. At present over 6 lakh rural youth participate in/benefit from one or the other activity of kendras. It is proposed to cover all the districts in the country by a Nehru Yuvak Kendra each during the next few years.

National Service Volunteer Scheme

Launched in 1977-78, the NSVS aims at providing opportunities to graduate students to involve themselves, on a voluntary basis, in nation-building activities for specific period on a wholetime basis. The volunteers are at present deployed with Nehru Yuvak Kendras and are involved in promotion of adult education programme through establishment of *Chetna Sanghs.* These volunteers also assist the Nehru Yuvak Kendras in organisation of their other on-going programme. As at present, about 400 national service volunteers are working with the Nehru Yuvak Kendras. The question of involving the voluntary agencies in promotion of this scheme and adding some new dimensions to the programme component of the scheme is under active consideration of the Department of Sports.

Promotion of National Integration

With a view to promoting a spirit of national integration among the youth in the country, the Department of Sports is assisting the voluntary agencies and youth groups recommended by the state governments, universities and Nehru Yuvak Kendras to facilitate the visit of

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youth living and working in border states to culturally different states and an exchange visit by youth of those states to the border states. The objective is to enable them to appreciate the vastness of the country, its varied system and yet a basic oneness which should engender among the participants a pride in being an Indian. The other component of the programme is organisation of national integration camps of youth drawn from various parts of the country.

Promotion of Adventure.

With a view to creating and fostering amongst youth a spirit of risk taking, cooperative team work, the capacity of ready and vital response to challenging situations and of endurance, the Department of Sports has been implementing the programme for promotion of adventure for quite sometime. Assistance under these programmes is given for various activities like mountaineering, trekking, hiking, exploration for collection of data, study of flora and fauna in the mountains, development and maintanence of camp sites in suitable areas of hill|forest|desert|sea, establishment of base camps to facilitate the various adventure activities, organisation of training programmes, holding of seminars and establishment and development of institutions, etc., for promotion of these activities. Many groups of youth avail of the facility available under these programmes every year. The Department is also meeting the recurring and non-recurring expenditure on the Indian Mountaineering Foundation, New Delhi which is a specialised institution working in this field. Assistance is also given, on sharing basis, to the Himalayan Mountaineering Institute, Darjiling.

Mountaineering

Mountaineering in India took its seed with the creation of the Himalayan Club in 1927. The ascent of Everest in 1953 by an Indian, Tenzing Norgay, along with Sir Edmund Hillary, marked the real beginning of mountaineering in India. The Himalayan Mountaineering Institute (HMI) was founded at Darjiling in 1954. The Indian Mountaineering Foundation (IMF) came into existence in a form of a sponsoring committee in 1957 but took its present nomenclature in 1961.

The number of expeditions of men and women, of Indian nationals and those from near and far countries and jointly with other nationalities, has already escalated from one or two annually in the fifties to more than 150 at present. Indians have now gone to more than 700 peaks of about 6,000 metres and above, probably the largest number so far for any country for such climbs. These included the record breaking ascent of Everest, the first climb of Kanchenjunga from the south side and climbs of several virgin peaks like Annapurna III, Nilkanth, Changabang and Saser Kangri and Kamet and Nanda Devi by girls for the first time.

IMF awards gold medal for outstanding and sustained mountaineering performance to Indian mountaineers. The medal, introduced in 1961, has been awarded to the following eight mountaineers till 1982 : N. D. Jayal (1926—1958), Sonam Gyatso (1922—1968), John Dias (1928—1964), M. S. Kohli, Narendra Kumar, Nawang Gombu, H. V. Bahuguna (1939—1977), Prem Chand.

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26 INDIA AND THE WORLD

Over the last three and a half decades India's foreign policy has been one of building bridges of friendship and cooperation with countries regardless of their economic or political system. India has consistently sought consolidation of world peace and the creation of conditions for economic progress for the newly emerging nations of Asia, Africa and Latin America from colonial domination and striven to promote international cooperation amongst all countries. In order to achieve this, India chose for herself the path of non-alignment and peaceful co-existence.

The basic parameters of India's foreign policy were laid down by the founding fathers of the nation more than 35 years ago. These have remained unchanged even today. On the eve of India's Independence, Prime Minister Jawaharlal Nehru (1889-1964), who was also its first Minister of External Affairs, told the Constituent Assembly : "And so we have to labour and to work, and work hard, to give reality to our dreams. Those dreams are for India, but they are also for the world, for all the nations and peoples are too closely knit together today for any one of them to imagine that it can live apart. Peace has been said to be indivisible; so is freedom, so is prosperity now, and so also is disaster in this One World that can no longer be split into isolated fragments." This vision of India's place in the world still beckons to all those concerned with the conduct of foreign affairs.

One of the Directive Principles of State Policy in the Constitution of India requires the State to endeavour to promote international peace and security, maintain just and honourable relations between nations and to foster respect for international law and treaty obligations. In the light of this Directive, the conduct of India's external relations since Independence has been governed by: (i) pursuance of an independent foreign policy avoiding alignment with power blocs, (ii) support to the principle of freedom for dependent people and opposition to racial discrimination, and (iii) cooperation with all peace-loving nations and the United Nations to promote international

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The 101-nation 7th Non-aligned Summit was held in New Delhi from 7—12 March 1983

Photo shows Prime Minister Indira Gandhi, outgoing Chairman Dr. Fidel Castro Ruz, President of Cuba, Natwar Singh, Secretary General of the NAM at the inaugural of the Summit on 7 March 1983

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A group photograph of the leaders who attended the 7th Non-aligned Summit.

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The Chair person, Smt. Indira Gandhi addressing pressmen at the conclusion of the Summit.



The 9th Asian Games were held in New Delhi from 19 November to 4 December 1982.

Photo shows the torch of Asian Games being carried to Jawaharlal Nehru Stadium on the inauguration of ASIAD 1982.



March past of the Indian contingent at the inaugural day.

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peace and prosperity without exploitation of one nation by another.

Rooted in India's traditions of tolerance, non-violence, secularism and democracy, these goals are but a part of the country's larger national commitment to self-reliant development in order to provide a better future for its people free from external threats or interference.

POLICY OF NON-ALIGNMENT

India, ever since her Independence, has consistently followed in her foreign relations a policy of non-alignment with the opposing power blocs. Such a policy flows naturally from India's past traditions and is fully in keeping with the interests of the people of India. It is an assertion of the country's national sovereignty and independence. It is not an end in itself but a means to an end—the lessening of tensions in the world and the preservation of world peace, so that India and other under-developed countries which have regained their freedom might be able to devote their energy and resources towards their economic and social betterment. The essence of non-alignment lies in the freedom and independence of each country to judge every question on its merits and not on the basis of a predetermined attitude arising out of alignment with other countries. Non-alignment implies an attitude of impartiality based on larger world interests rather than on the narrow and limited interests of one power or group of powers. Despite its detractors, the policy and practice of non-alignment has steadily developed into a major factor in international affairs, with the emergence of a large number of countries of Asia and Africa into independence. The gradual crystallisation and evolution of non-alignment was perhaps Jawaharlal Nehru's greatest and most significant contribution in the field of international affairs.

NON-ALIGNED SUMMIT

The largest ever summit of non-aligned countries was held at New Delhi from 7-12 March 1983. It is a measure of viability and relevance of the movement, initiated by India, that 100 member nations and many observers and guest delegations took part in the 7th Conference of Heads of State or Government of Non-aligned countries. The main question before the New Delhi Summit included peace, development and disarmament. The Conference was declared open by President Fidel Castro Ruz of Cuba and Prime Minister Indira Gandhi, delivered the inaugural address. In her keynote address, the Prime Minister emphasised the continuing relevance of the principles and objectives of the non-aligned movement in contemporary international politics. She reiterated the deep and abiding commitment of member states to the principles of non-alignment directed towards the consolidation of peace, justice and progress in the world, the attainment of disarmament and the establishment of New International Economic Order based on justice and equity. The Prime Minister called for the convening of an international conference on money and finance for development, which will devise methods to mobilize finance for investments in critical areas. She emphasised the inter-relationship between peace, independence, disarmament and development and made a strong plea for unity, harmony and collective self-reliance amongst non-aligned countries.

Prime Minister Indira Gandhi was elected chairperson of the Summit on the proposal of the President of Cuba, which was supported by several representatives.

The main documents adopted by the Conference were Political

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Declaration, Economic Declaration, Action Programme for Economic Cooperation, Declaration on Collective Self-reliance among Non-Aligned and Other Developing Countries, and the New Delhi Message. In the Political Declaration, the Heads of State or Government of Non-Aligned Countries focussed attention on the struggle for peace and development. The Declaration underlined the need for urgent practical measures to prevent nuclear annihilation and curb the armaments race. It also emphasised the need for observing the principle of peaceful settlement by the non-aligned countries amongst themselves. The Heads of State or Government renewing their commitment to the principles and objectives of the movement of non-aligned countries, recalled that the struggle against imperialism, colonialism, neo-colonialism, apartheid and all forms of foreign intervention, interference, aggression, occupation, domination or hegemony, and total detachment from power blocs and alliances and their confrontations, remained fundamental elements in the policy of non-alignment.

Referring to the Indian Ocean as a Zone of Peace, the Conference reaffirmed the determination of non-aligned states towards the attainment of the objectives embodied in the 1971 UN Declaration of the Indian Ocean as a Zone of Peace. The Heads of State/Government were convinced that any manifestation of great power military presence, foreign bases, military installations and logistical supply facilities, nuclear weapons and weapons of mass destruction in the Indian Ocean constitute a flagrant violation of that Declaration. The Conference also expressed full support for Mauritian sovereignty over the Chagos archipelago including Diego Garcia and declared that the establishment and strengthening of the military base at Diego Garcia has endangered the sovereignty, territorial integrity and peaceful development of Mauritius and other littoral states.

In the Economic Declaration, the New Delhi Message, a Declaration on "Collective Self-reliance among Developing Countries", the Seventh Non-aligned Summit re-emphasised the need for establishing the new international economic order; called for global negotiations to be launched through a conference within the UN system in early 1984; proposed the convening of an international conference on money and finance for development with universal participation for comprehensive restructuring of the international monetary and financial system; stressed that immediate measures were necessary to stimulate the economies of developing countries with mechanism readily available through a programme of immediate measures in critical areas such as food, energy, financial flows, trade and raw materials and provided a political impetus to strengthening and intensifying cooperation among developing countries.

The New Delhi Message described peace and peaceful coexistence, independence, disarmament and development as "central issues of our time" and called for an immediate halt to the drift towards nuclear conflict and described 1983 "a crucial year for nuclear disarmament". Turning attention to the economic crises facing the world, the Conference underlined the urgent necessity of a thorough-going restructuring of the existing international economic order and urged a process of global negotiations towards this end.

Prime Minister Indira Gandhi delivering her closing address stated that non-aligned movement was not a mere or casual collection of individual states but a vital historical process, attempting basic changes.

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The movement, she said, did not set its sights on short-term and limited benefits but on broader principles to transform the political and economic organisations of the world. The Prime Minister appealed to the member states to extend their cooperation so that India could shoulder her responsibility as the chairman of the movement for the next three years.

OTHER INTERNATIONAL CONFERENCES

During 1982, India played a significant and constructive role in the Committee on Disarmament in Geneva. As in earlier years, the Indian approach was to focus attention on the issue of prevention of nuclear war and press for multilateral negotiations on urgent measures for nuclear disarmament. It was largely due to the pressure that India exercised, in association with other non-aligned and neutral countries within the Committee on Disarmament, that a consensus could be reached on the setting up of an Ad hoc Working Group on the Prevention of Nuclear War, with a view to reaching agreement on certain appropriate and practical measures for the prevention of nuclear war. The proposal also won the support of the group of socialist countries represented in the Committee on Disarmament. Interest in the proposal was also expressed by certain West European states.

The Second Special Session of the UN General Assembly devoted to Disarmament (SSOD-II) was held in New York from 7 June to 10 July 1982. Prime Minister Indira Gandhi, in a message to the SSOD-II put forward a five-point programme of action which included proposals for : (i) A convention on the non-use of nuclear weapons; (ii) A freeze on nuclear weapons, providing for the total stoppage of any further production of nuclear weapons, combined with a cut-off in the production of fissionable material for weapon purposes; (iii) Immediate suspension of all nuclear weapon tests; (iv) Disarmament negotiations towards achieving a Treaty on General and Complete Disarmament, within an agreed time-frame as was discussed between the USA and USSR in the Agreed Principles and Draft Treaties of the early sixties; and (v) A call to the United Nations and its specialised agencies to take the lead in educating the public on the dangers of nuclear war, the harmful effects of the arms race on the world economy as well as the positive aspects of the disarmament and its link with development.

During the session India submitted a draft resolution and convention relating to the points contained in the Prime Minister's message.

United Nations General Assembly

The 37th session of the UN General Assembly commenced on 21 September 1982. The Indian delegation to the session was led by the Minister of External Affairs P. V. Narasimha Rao, who addressed the General Assembly on 1 October when he reaffirmed India's commitment to the principles and purposes of the UN. He referred to India's efforts at building-up self-reliance internally and maintenance of an independent policy externally.

The issue of disarmament once again came up at the 37th session. The proposals put forward by India at the second special session had been communicated to the 37th regular session of the General Assembly for consideration and action. India's proposal for a freeze put forward at the SSOD-II, was adopted by an overwhelming

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majority including positive votes cast by China and the Soviet Union (both nuclear weapon states).

Global Negotiations on World Economic Order

India continued its efforts at focussing attention on North-South and South-South economic relations and played a key role in these deliberations. It took the initiative to convene the New Delhi Consultations in February 1982, among senior representatives of 44 developing countries to take stock of the various issues involved. This proved useful and timely in generating an atmosphere of constructive cooperation. There was a consensus that launching of global negotiations would represent the most far-reaching endeavour of the international community for multilateral international cooperation for development. There was also agreement on the urgency of taking immediate steps in certain key areas affecting developing countries such as food, energy, trade and financial flows. Following the New Delhi consultations, the developing countries came up with a new proposal for launching global negotiations which took into account most of the concerns of the industrial nations. It was largely this accommodation shown by the Group of 77 that prompted the seven major industrialised nations to come up with a statement at their summit meeting in Versailles in June 1982 supporting the early launching of these negotiations.

South Asian Regional Cooperation

South Asian Regional Cooperation was another area in which progress was registered during 1982. The third meeting of Foreign Secretaries of the region (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) was held in Islamabad in August. It was agreed at this meeting that, on the basis of the report of the various working groups, an integrated programme of action in the eight agreed areas of cooperation (agriculture, postal services, meteorology, transport, health and population, telecommunications, science and technology and rural development) should be prepared, with specific recommendations regarding modalities and mechanisms for implementation, coordination and monitoring, and to the extent possible, with indications of the financial implications of the short-term component of the programme and possible funding arrangements for its long-term components.

RELATIONS WITH COUNTRIES

Alongside concerned multilateral activities, India's foreign policy initiatives during 1982 were directed towards promoting cooperative bilateralism in the neighbourhood and enlarging the areas of understanding and cooperation with all countries. Prime Minister Indira Gandhi showed considerable personal interest and took several bold initiatives in multilateral as well as bilateral diplomacy to promote the basic objectives of India's foreign relations. Her dialogues with the Presidents of France, USA and USSR served to underline the importance attached by India to the promotion of better understanding and cooperation between nations with differing socio-economic and political systems. Her visits to Mozambique and Mauritius gave a new dimension to India's political, economic and cultural relations with these countries.

Bangladesh

Significant progress was made in Indo-Bangladesh relations during 1982. Bilateral dialogue between the two Governments was continued at various levels culminating in the state visit of the Chief Martial

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Law Administrator of Bangladesh, Lt. Gen. Ershad, in October. An important development during the visit was the conclusion of an agreement on establishment of a Joint Economic Commission and another on the terms of the lease in perpetuity of the Tin Bigha area to Bangladesh. A Memorandum of Understanding was also signed by the two sides on the question of sharing of Ganga waters.

Pakistan

The progress towards good neighbourly relations between India and Pakistan, registered in the previous year, gained ground during the year under review. While further progress was made on the establishment of an Indo-Pakistan Joint Commission, exchanges and visits at various levels contributed to a better understanding of each other's approach to the establishment of peace, friendship and cooperation in the sub-continent. The dialogue is continuing.

China

The Government of India persevered also with the efforts to improve relations with China and, to this end, two rounds of official talks were held. Though the talks mainly covered key aspects of the boundary question, several other bilateral matters were also discussed. India and China also exchanged delegations in such diverse fields as railways, petroleum, agriculture, sciences, health, etc.

Bhutan

India continued to take active interest in the well-being and development of its other immediate neighbours. A grant of Rs 25 crore was pledged for 1982-83 towards the implementation of the Fifth Plan of Bhutan. In addition, India continued assistance in various projects including the construction of a major hydroelectric project at Chukha, construction of Indo-Bhutan microwave link and the building of road bridges and the like. The process of shifting Tibetan refugees living in Bhutan to India has been completed during the year.

Nepal

Indo-Nepal relations continued to be guided by a spirit of mutual understanding. There were regular exchanges of visits, private and official, at various levels. Indo-Nepal economic cooperation took further strides with the decision to set up a joint industrial committee to strengthen industrial cooperation between the two countries. The Indo-Nepal Boundary Committee at the joint technical level, continued its good work. India has agreed to supply 10,000 tonnes of rice to Nepal on an urgent basis and to consider supply of wheat.

Sri Lanka

Cooperation with Sri Lanka under the Indian Technical and Economic Cooperation Programme as well as Programmes of Technical Cooperation among Developing countries under the United Nations Development Programme was further increased.

Afghanistan

India displayed considerable interest in resolving the situation in Afghanistan through a negotiated political settlement. India's policy towards Afghanistan is based on its abiding interest in the traditional non-alignment, independence, sovereignty and stability of that country.

Iran

India attaches great importance to the developing relationship with Iran, based on historical bonds, non-alignment and mutual benefit.

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The Head of Iranian Majlis, the Foreign Minister and the Deputy Foreign Minister of Iran visited India during the year while several other delegations from Iran were also received. An economic and commercial delegation from India visited Iran and signed a Memorandum of Understanding on commercial and economic cooperation.

South East Asia

India's traditional relationship with countries in South-East Asian region maintained a steady and progressive improvement. The Kampuchean issue continued to dominate the South-East Asian political scene and, in the context of the New Delhi Non-Aligned Summit, special efforts were made to suitably explain India's position on this and allied issues to the non-aligned members of the Association of South East Asian Nations (ASEAN). Special efforts were made to increase trade exchanges with Malaysia, with the organisation of an Indian trade exhibition in that country. A significant step in the development of Indo-Thai relations was the official visit of the Indian Minister of External Affairs to that country.

India's commitment to develop long-term cooperation with the states of Indo-China was further demonstrated during the year under review. An agreement for Rs 10 crore credit to Vietnam was signed and an Indo-Vietnamese Joint Commission was set up. Mutual understanding prevailed in India's relations with Australia, New Zealand and Fiji. The visit of the President of Nauru was marked by the signing of an agreement for the joint venture fertiliser plant based on phosphate supplied by Nauru.

Friendly relations with Japan were consolidated and developed through bilateral contacts at high levels. The Indian and Japanese Foreign Ministers exchanged visits while the Prime Minister made a stop-over in Tokyo, on her way back from a visit to USA. Efforts are continuing towards the improvement of India's balance of trade with Japan.

Relations with the Republic of Korea, Democratic Peoples Republic of Korea and Mongolia continued to be friendly and mutually beneficial.

West Asia

India persevered in its role as a friend and partner in the political and economic development of the Arab world and maintained its policy of full support for the Arab and Palestinian cause. The visit of the PLO Chairman to India provided an opportunity for the reaffirmation of India's belief that no solution to the West Asian situation is possible without full recognition of the rights of the Palestinians. India severely condemned Israeli invasion of Lebanon and the massacre of innocent civilians. Mutually beneficial economic relations with Arab countries, especially Saudi Arabia, Iraq, the United Arab Emirates, and Kuwait continued to be developed. Indo-Saudi relations received an impetus with the visit of the Prime Minister to Saudi Arabia. Relations with the Arab North African countries were further strengthened with exchange of visits at high level, including that of the President of Algeria and the First Lady of Tunisia to India, and those of the Indian Minister of Planning and the Speaker of the Lok Sabha to Algeria and Morocco respectively.

Africa

India's total and unflinching support to the cause of African freedom was further demonstrated during the year. The visit of the leaders of South West Africa People's Organisation (SWAPO) and African

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National Congress (ANC) of South Africa demonstrated the faith and confidence of these liberation movements in India's policy and assistance. In keeping with the tradition of high-level exchange of visits with the independent countries of Africa, India played host to the Presidents of Mozambique and Nigeria and the Prime Minister of Mauritius, while Prime Minister of India visited Mauritius and Mozambique. Delegations were also exchanged at various levels with Ethiopia, Kenya, Tanzania, Mauritius, Nigeria, Zimbabwe, Burundi and Upper Volta.

West Europe

India's relations with Western Europe continued to expand and develop and there were wide contacts in the economic, cultural and scientific fields both at the official and non-official levels. The visit of the French President to India contributed considerably to the strengthening of Indo-French relations and underlined the increasing degree of similarity in the approaches of the two countries to key international issues. The conclusion of the nuclear fuel agreement with France for supply of enriched uranium for the Tarapur atomic power plant marked the beginning of a new area of Indo-French co-operation. As in the past, there were exchanges of visits at high level with various West European countries such as Indian President's visit to Ireland, the visits to India of the President of Greece, the Prime Ministers of UK and Sweden and the Foreign Ministers of Austria, Denmark and Finland.

Soviet Union and East Europe

The visits of the former President, Neelam Sanjiva Reddy, to Yugoslavia and of the Prime Minister to the Soviet Union, highlighted the ever-increasing bilateral relations with East European countries. The Treaty of Peace, Friendship and Cooperation signed between India and the Soviet Union in 1971 has guided the two governments in their efforts to strengthen their cooperation in various fields. The Prime Minister's visit provided an occasion for strengthening mutual trust between the leaders and ties of close friendship between India and the Soviet Union. With Yugoslavia, apart from strengthening bilateral relations, there was continuous and constant coordination concerning issues affecting the movement of non-aligned countries.

United States

There was considerable improvement in the climate of Indo-US relations following the visit of the Indian Prime Minister to the USA in July/August. The visit helped in the resumption of annual bilateral consultations on a regular basis and facilitated increase cooperation in the economic, scientific and technological fields. India continued to seek greater understanding from the US Administration on issues of particular concern to this country. There was, however, little indication of any change in US policy to induct sophisticated armaments into the sub-continent. Differences also persisted in the perceptions of the two countries over political developments in West and South West Asia, Indian Ocean and South East Asia.

Latin America

India's relations with the countries of Latin America and the Caribean were marked by a greater interest in tackling mutual problems and the desire to expand existing cooperation and extend it to new fields. Many useful exchanges of visits took place between India and Latin America towards this end and agreements on economic and technical

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cooperation were signed with a number of Central and South American countries.

BILATERAL ECONOMIC RELATIONS

India's bilateral, economic and technical cooperation as well as trade relations, especially with developing countries, continued to receive considerable attention. The Joint Commissions with Afghanistan, Bangladesh and Iraq met and achieved significant results. The Joint Commissions with various East European countries continued to be active.

The sixth meeting of the Indo-Afghan Joint Commission for Economic Cooperation was held in Kabul in May 1982. It identified areas of technical and economic cooperation that would be of direct benefit to the people of Afghanistan.

The first meeting of the Indo-Bangladesh Joint Economic Commission was held in New Delhi on 16 and 17 November 1982. The Joint Commission has imparted greater impetus and content to the economic relationship between the two countries.

The Iraqi Minister for Oil, Qassim A. Taqi, led the Iraqi delegation to the eighth session of the Indo-Iraq Joint Commission in New Delhi from 10 to 15 January 1983. The session reviewed past progress and identified areas of cooperation and exchanges for 1983.

Progress was made in the economic relations between India and Italy at the Fifth meeting of the Joint Commission held in Rome in November 1982. Several offers for projects for production and/or transfer of technology with financial assistance were made by the Italian side in fields like electronic teleprinters, fertilizers and thermal and hydro-power plants. The two sides agreed to set up a Joint Business Council.

There was an upsurge in economic contacts between India and the East European countries through the meetings of India's Joint Commissions with these countries. During the year under review, meetings of the Indo-Soviet, Indo-Bulgarian, Indo-Czechoslovak, Indo-German Democratic Republic, Indo-Hungarian, Indo-Polish and Indo-Romanian Joint Commissions were held at ministerial level, at Moscow, Sofia, Prague, Berlin, Budapest, Warsaw and New Delhi respectively. At these meetings, important aspects of economic cooperation such as sectoral cooperation in metallurgy, power, coal and oil, diversification and expansion of trade, industrial cooperation in third-country projects, cooperation in agriculture, drugs, pharmaceuticals and mining, were discussed in depth.

INDIAN TECHNICAL AND ECONOMIC COOPERATION

India's technical and economic cooperation (ITEC) with the developing countries continued to progress during 1982-83. A sum of Rs 7.13 crore was earmarked for implemention of various ITEC programmes during the year. This was in addition to the individual technical and economic cooperation programmes with Nepal, Bhutan and Bangladesh.

India paid a contribution of Rs 16.68 lakh to the Economic Commission for Africa in addition to its contribution of Rs 90 lakh to the Industrial Development Unit of the Commonwealth Fund for Technical Cooperation under the ITEC Programme. Other activities included gifting of equipment and spares, valued at Rs 29 lakh to Cuba for UNIDO-aided project, and equipment worth Rs 9 lakh for the Butiama Workshop in Tanzania. The two Indian-aided research

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centres established in Vietnam under ITEC started functioning. A proposal for conducting ten feasibility studies in Peoples Democratic Republic of Yemen (PDRY) by the National Industrial Corporation was also finalised.

One hundred and forty-six Indian experts are currently assisting various countries under the ITEC Programme of the Ministry of External Affairs. One thousand and two hundred foreign trainees from various countries received training in India.

INDIA'S CULTURAL RELATIONS

The Indian Council for Cultural Relations functions as the main agency for promoting India's cultural election with foreign countries. During 1982, the Council received nearly one hundred distinguished visitors from fields such as fine arts and literature, education, musicology and science. Under the programme of incoming performing arts delegations, more than 40 groups visited India from various countries. The highlight of the year in the field of incoming performing arts was the Festival of Asiad Performing Arts which was organised by the Council in New Delhi from 14 November to 5 December, and ran concurrently with the Asian Games. Sixteen prestigious troupes from Bangladesh, China, the Democratic People's Republic of Korea, Sri Lanka, Thailand, Yemen Arab Republic and Peoples Democratic Republic of Yemen participated.

As part of the cultural projection effort abroad, 62 visitors and 73 performing delegations were sent out to various countries. The individual visitors who were academicians, educationists, writers, artists and critics, participated in conferences and seminars, delivered lectures and held exhibitions. Among the Indian exhibitions sent out were a representative collection of modern Indian paintings to the Festival of India in London and to the Smithsonian Institute in Washington, and a sculpture exhibition by Amarnath Sehgal to Switzerland. Within the framework of the existing cultural protocol, 75 Bangladesh scholars availed themselves of scholarships offered by the Government of India during 1982-83 for pursuing higher studies in India. The Council performs an important function by way of looking after the welfare of foreign students studying in India. It has appointed foreign students advisers in various universities to assist in this regard. Under the Presentation Programme, books and art objects were sent to universities, institutions and cultural organisations in a number of countries.

Under the scheme of maintenance of Chairs/Centres of Indian Studies abroad, the Council deputed Indian professors and lecturers of Indian Studies, Sanskrit, Hindi and Tamil to EL Colegio de Mexico and to the Universities of Guyana, Sofia, Bucharest, Havana, Humboldt, Berlin, West Indies, St. Augustine and Trinidad. Besides, two Hindi lecturers have been deputed, one to the Indian Cultural Centre (ICC) in Suriname and the other to the Indian Cultural Centre (ICC) Guyana.

For prompting greater awareness and appreciation of the Indian cultural heritage, the Council has been maintaining Cultural Centres in Fiji, Guyana, and Suriname.

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27 STATES AND UNION TERRITORIES

ANDHRA PRADESH

Area : 2,75,068 sq km
Capital : Hyderabad
Population : 5,35,49,673
Principal languages : Telugu and Urdu

AGRICULTURE Agriculture is the main occupation of about 74 per cent of the people in Andhra Pradesh. Thirtyfive per cent of the cultivated area is irrigated. The state is surplus in foodgrains particularly rice. Other important crops are *jowar, bajra,* maize, *ragi,* small millets, pulses, tobacco, cotton, sugarcane, groundnut and bananas. The production of foodgrains reached an all time record of 114.17 lakh tonnes in 1981-82. The state accounts for about 55 per cent of the country's entire production of castor and 94 per cent of Virginia tobacco.

Forests cover 23.3 per cent of state's area. Important forest products are tea, eucalyptus, cashew, casuarina, bamboo, soft wood, etc.

INDUSTRY Several major industries are in operation around Hyderabad and Visakhapatnam. These produce machine tools, synthetic drugs, pharmaceuticals, heavy electrical machinery, ships, fertilizers, electronic equipment, aeronautical parts, cement and cement products, chemicals, asbestos, glass and watches.

Work on the steel plant at Visakhapatnam has commenced. Foundation for the railway carriage repair workshop at Tirupati has been laid. A coal-based fertilizer plant at Ramagundam has started commercial production. To promote small scale industries, district industries centres have been set up in the state.

According to an agreement IFFCO is to set up Rs 83 crore fertilizer plant at Kakinada as a joint venture. A Rs 8 crore spinning mill was inaugurated at Sadasivpet, Medak district in March 1983.

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The state is endowed with a rich variety of minerals. In fact, Andhra Pradesh has a virtual monopoly of quality 'chrysolite asbestos' in the country. It accounts for about 75 per cent of India's total production of barytes. Other important minerals found are copper ore, manganese, mica, coal and limestone. The state ranks sixth in manganese ore production in the country. Singareni coal mines in the state supply coal to the entire South.

IRRIGATION AND POWER

Important irrigation schemes implemented include Nagarjunasagar project, Prakasam barrage, Tungabhadra low level canal, Kurnool-Cuddapah canal, Kadam project, Romperu drainage project and Upper Pennar project. The foundation stone for Polvaram multi-purpose project was laid on 19 May 1981. Other important projects under implementation include the Sri Ramasagar project, the Vamsadhara project and the Somasila project.

Important power projects are the Machkund, Upper Sileru, Lower Sileru, Tungabhadra Dam, Nagarjunasagar and Nizam Sagar hydel power schemes and Nellore, Ramagundam, Kothagudam, Vijayawada and Hussain Sagar (Hyderabad) thermal stations. The installed capacity both hydel and thermal reached 2,298 mw by March 1982. As on 15 February 1983, 20,159 villages and 8,150 hamlets including *harijanwadas* had been electrified and 5.32 lakh pumpsets energised. The state's prestigious power project, the Srisailam hydro electric project is under construction.

GOVERNMENT

Governor : Ram Lal

Council of Ministers

Chief Minister : N. T. Rama Rao

Cabinet Ministers : Nadendla Bhaskara Rao, Nallapareddi Srinivasulu Reddy, P. Mahendranath, Sangamreddi Satyanarayana, Karanam Ramachandra Rao, Pusapati Ananda Gajapati Raju, Kundur Jana Reddy, Sirigireddi Ramamuni Reddy.

Ministers of State : Smt. K. Pratibha Bharati, M. Ramachandra Rao, Yanamala Ramakrishnudu, T. Jeevan Reddy, Mohammed Shakir, and Chegondi Venkatarama Jogayya.

Legislative Council

Chairman : Syed Mukkassir Shah

Deputy Chairman : T. Panchajanyam

Legislative Assembly

Speaker : T. Satyanarayana

Deputy Speaker : A. Bhima Reddy

High Court

Chief Justice : K. Madhava Reddy

Judges : K. Ramachandra Rao, P. Chenna Kesava Reddy, V. Madhava Rao, K. Punnayya, A. Raghuvir, A. Gangadhar Rao, K. Jayachandra Reddy, B. P. Jeevan Reddy, Smt. K. Amareswari, P. A. Chowdary, G. Ramanujulu Naidu, P. Ramachandra Raju, A. Seetharama Reddy, P. Rama Rao, C. Sriramulu, T. Laxminarayana Reddy, P. Kodanda Ramaiah, K. Rama Swamy, M. Jagannadha Rao.

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Public Service Commission

Chairman : Siva Sankara Reddy

Members : Ghulam Ahmed, Dr. Joseph Gummadi, Sudarshan, B. Baburao Varma, K. Chandraiah

Chief Secretary : B. N. Raman

AREA, POPULATION AND HEADQUARTERS

District	Area (sq km)	Population	Headquarters
1. Adilabad	16,128	16,39,003	Adilabad
2. Anantapur	19,130	25,48,012	Anantapur
3. Chittoor	15,152	27,37,316	Chittoor
4. Cuddpah	15,359	19,33,304	Cuddapah
5. East Godavari	10,807	37,01,040	Kakinada
6. Guntur	11,391	34,34,724	Guntur
7. Hyderabad	217	22,60,702	Hyderabad
8. Karimnagar	11,823	24,36,323	Karimnagar
9. Khammam	16,029	17,51,574	Khammam
10. Krishna	8,727	30,48,463	Machilipatnam
11. Kurnool	17,658	24,07,299	Kurnool
12. Mahabubnagar	18,432	24,44,619	Mahabubnagar
13. Medak	9,699	18,07,139	Sangareddi
14. Nalgonda	14,240	22,79,685	Nalgonda
15. Nellore	13,076	20,14,879	Nellore
16. Prakasam	17,626	23,29,571	Ongole
17. Nizamabad	7,956	16,79,683	Nizamabad
18. Ranga Reddy	7,493	15,82,062	Hyderabad
19. Srikakulam	5,837	19,59,352	Srikakulam
20. Visakhapatnam	11,161	25,76,474	Vlsakhapatnam
21. Vizianagaram	6,539	18,04,196	Vizianagaram
22. Warangal	12,846	23,00,295	Warangal
23. West Godavari	7,742	28,73,958	Eluru

ASSAM

Area : 78,438 sq km
Capital : Dispur (Temporary)
Population : 1,98,96,843
Principal language : Assamese

AGRICULTURE

The area under foodcrops accounted for 84 per cent of the total cropped area during 1978-79. The principal food crop is rice while the main cash crops are jute, tea, cotton, oilseeds, sugarcane, potato and fruits. The area covered and production of rice during 1981-82 was 22.58 lakh hectares and 22.35 lakh tonnes respectively. During the same period the area covered under jute was 1,10,280 hectares and production 9,51,113 bales. An area of 1,02,170 hectares was under wheat cultivation during the year.

Forests covered 25.27 per cent of the total area of the state during 1978-79. Main forest products are timber, bamboo, reeds, medicinal herbs, lac, cane and elephant tusks.

INDUSTRY

Of the agriculture based industries, tea occupies an important place. There are nearly 750 tea plantations in the state. Petroleum and petroleum products form the other main industries. Assam produces about 50 per cent of the country's total petroleum output and natural gas. The state has two oil refineries and the third, with a petro-

1. Projected figures for 1981.

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chemical complex, is under way. There is also a public sector fertilizer factory at Namrup. Other industries are sugar, jute, silk, paper plywood, rice and oil milling. Important cottage industries are handloom, sericulture, cane and bamboo articles, carpentry, smithy and brass utensils. An export oriented handloom project has been started at Sualkuchi to exploit the export potentialities of *eri* and *muga*.

Assam is rich in mineral wealth. It holds a unique position in the production of mineral oil. Other minerals found in the state are coal, limestone, refractory clay, dolomite and natural gas.

IRRIGATION AND POWER

The gross irrigation potential in Assam is estimated at about 27 lakh hectares out of which it is planned to irrigate 10 lakh hectares through 2 major and 7 medium irrigation schemes and 17 lakh hectares through minor irrigation.

Up to the end of 1980-81, 7 medium schemes have been completed. Among them are Yamuna and Sukla projects which were commissioned in 1969 and 1978 respectively. A Minor Irrigation Corporation has been set up to accelerate the lending programme to farmers for installation of tubewells.

The Bongaigaon Thermal Project has been commissioned and the Lakhwa Thermal Project is likely to be commissioned soon. It is planned to raise the installed capacity to about 600 mw by the end of 1984-85.

IMPORTANT TOURIST CENTRES

Among the places of tourist interest may be mentioned the Kamakhya, Umananda and Navagraha temples, Kaziranga and Manas wildlife sanctuaries and Sibsagar. Hajo (near Guwahati) is known for its Buddhist temple and the mosque, Poa-Mocca.

GOVERNMENT

Governor : Prakash Mehrotra

Council of Ministers

Chief Minister : Hiteswar Saikia

Cabinet Ministers : Mahammad Idris, K. C. Gogoi, Smt. Anwara Taimur, R. N. Basumatary, Upen Das, Dhaniram Rongpi, Zehirul Islam, Jaganath Singh, Mukut Sarma, Jagadish Choudhury, Rameswar Dhanewar, Tilok Gogoi, Golak Rajbangshi, S. R. Sarkar, Abdul Mahib Majumdar, Bhumidhar Barman, Dipak Moormoo, Raghunath Pamegam and G. C. Langthasa.

Ministers of State : Padam Bahadur Chouhan, Abdul Muktar Choudhury, Ibrahim Ali, Tangkeswar Dehingia, Dinanath Rajkowa and K. C. R. Pradhani.

Deputy Ministers : Lambeswar Sonowal, NagenNeogi, Munin Sarma, Luis Islary, Kul Bahadur Chetri and Lakhi Prasad Hazarika.

Legislative Assembly

Speaker : Seikh Chand Mohammed

High Court

Chief Justice : Triveni Sahay Misra

Public Service Commission

Chairman : A. K. Choudhury

Chief Secretary : Ramesh Chandra

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AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Cachar	6,962	17,13,318	Silchar
2. Darrang	8,775	17,36,188	Tezpur
3. Goalpara	10,359	22,25,103	Dhubri
4. Kamrup	9,863	28,54,183	Guwahati
5. Karbi Anglong	10,332	3,79,310	Diphu
6. North Cachar Hills	4,890	76,047	Haflong
7. Nowgong	5,561	16,80,985	Nowgong
8. Sibsagar	8,989	18,37,389	Jorhat
9. Lakhimpur	5,646	7,11,600	North Lakhimpur
10. Dibrugarh.	7,023	14,11,119	Dibrugarh

1. Following six new districts were inaugurated on 30 June 1983 : Dhubri, Kokrajhar, Barpeta, Mangaldoi, Jorhat and Karimganj.

BIHAR

Area : 1,73,877 sq km *Population* : 6,99,14,734

Capital : Patna *Principal language* : Hindi

AGRICULTURE

The principal foodgrain crops are rice, wheat, maize, *ragi* and pulses. Main cash crops are sugarcane, oilseeds, tobacco, jute and potato. Net irrigated area forms 35 per cent of the cultivated area. Forests cover about 16 per cent of the geographical area. Important forest products are timber, *kendu* leaves, lac, gum, resin, *sal* seeds, etc.

IRRIGATION AND POWER

Major irrigation schemes on Kosi, Gandak and Sone are nearing completion. Work is in progress only on the western Kosi canal taking off from the existing Kosi barrage. New major irrigation schemes under construction include North Koel reservoir and barrage, Arrange reservoir, Durgawati reservoir, Bamar reservoir, Upper Kiul reservoir, Sikatia barrage on Ajoy river, canal systems from Konar and Tilaiya reservoir of Damodar Valley Corporation, Subernarekha multipurpose project, Ganga pump canals at Dakanala, Bateshwarsthan, Chausa, Punasi reservoir and Masan dam.

A number of medium irrigation schemes are also under construction. Of the 52 such schemes, 24 are in the tribal areas of the state.

Agreement has been signed on the sharing of water of the inter-state rivers.

Major power projects are Patratu Thermal Power Station, Barauni Thermal Power Station, Subernarekha and Kosi Hydro-electric Power Stations under Bihar State Electricity Board and Bokaro, Chandrapura and Durgapur Thermal Power Stations along with Tilaiya, Maithon and Panchet Hydel Power Stations under Damodar Valley Corporation.

The total installed capacity of thermal and hydel power stations in March 1983 was 2,361·5 mw. The number of electrified villages was 29,343 by the end of March 1983. For irrigation 1,79,730 pump sets/ tubewells had been energised.

INDUSTRY

The Tata Iron and Steel Co. Ltd., and the Tata Engineering and Locomotive Co. Ltd. at Jamshedpur, the Fertilizer Factory at Sindri, the Heavy Engineering Corporation and Foundry Forge Project at Ranchi, the Steel Plant at Bokaro, the Oil Refinery and Fertilizer

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Factory at Barauni, the Aluminium Plant at Muri (Ranchi), the Explosives Factory at Gomia, and paper, vegetable oil and cement factories at Dalmianagar, Hindustan Copper Corporation at Ghatsila, a zinc production unit at Tundu (Dhanbad), marine diesel engine, ball bearing and wire rope units at Ranchi, glass factories at Seraikela and Bhurkunda are some of the major industrial ventures. Besides, there are a number of refractory units, both in small and medium sectors.

The Bihar State Industrial Development Corporation (BSIDC) is running several projects in medium and large sectors like High Tension Insulator Factory and Electric Equipment Factory at Ranchi, Spun Silk Mill at Bhagalpur, Scooter Project at Fatwa, Super Phosphate Factory and N.P.K. Granulated Factory at Sindri in public sector and Bihar Air Product at Jamshedpur, Rajhans Steel Ltd. at Jamtara, Kashi Ispat at Bhagalpur in joint sector. The Bihar State Pharmaceutical and Chemical Corporation has set up a sulphuric acid plant at Barauni and a ceramic capacitor project at Khagaul in joint sector. The Bihar State Electronic Development Corporation is running Mining Electronic Project at Dhanbad and TV Project at Dinapur. The Bihar Finished Leather Ltd. has set up three leather finishing units, one each at Muzaffarpur, Bettiah and Barauni in public sector which have gone into production in 1982.

The Bihar State Textile Corporation has set up a woollen spinning mill at Jasidih and has started construction works on three spinning mills in cooperative sector, one each at Bhagalpur, Pandaul and Siwan, two jute mills at Kishanganj and Forbesganj.

Six industrial area development authorities have been set up, one each at Adityapur, Bokaro, Darbhanga, Ranchi, Muzaffarpur and Patna. Under these authorities, 29 industrial estates and 23 industrial areas are functioning at different places.

The financial assistance is provided by the Bihar State Financial Corporation and Bihar State Credit and Investment Corporation.

Bihar is one of the richest states in India in mineral wealth, accounting for about 40 per cent of the total mineral production in the country. It has huge deposits of copper, capatite and kyanite and sizeable deposits of coal, mica and china clay. It is also one of the principal iron ore producing states. Other important minerals found are manganese, limestone, graphite, chromite, asbestos, barytes, dolomite, felspar, columbite, pyrites, saltpetre, glass sands, slate, lead, silver, building stones and radio-active minerals.

Bihar is famous for its *tusser* production which employs more than one lakh persons. Handicrafts occupy an important place among the cottage industries. Madhubani paintings have a place in the world market.

GOVERNMENT

Governor : Dr. A. R. Kidwai

Council of Ministers

Chief Minister : Chandra Shekhar Singh

Cabinet Ministers : T. Mochi Rai Munda, Laliteshwar Prasad Shahi, Lahtan Choudhary, Nagendra Jha, Rafiq Alam, Dilkeshwar Ram, Ramashraya Prasad Singh, Mohammed Salauddin, Jag Narain Trivedi, Ram Jaipal Singh Yadav, Umeshwar Prasad Verma, Buddha Deo Singh and Smt. Prabhavati Gupta.

Ministers of State : Prem Narain Garhwal, Bandi Shankar Singh, Leander Thiru, Braj Kishore Singh, Madan Prasad Singh, Moidur

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Rahman, Smt. Muktidani Sumbrui, Mahavir Paswan, Khalid Rashid Saba, Bandi Oraon, Krishna Nand Jha and Awadh Bihari Singh.

Legislative Council

Chairman : Prithvi Chand Kisku

Legislative Assembly

Speaker: Radha Nandan Jha

Deputy Speaker: Gajendra Prasad Himanshu

High Court

Chief Justice : S. Sarwar Ali (Acting)

Judges: B. P. Jha, H. L. Agrawal, L. M. Sharma, S. K. Jha, N. P. Singh, S. K. Choudhary, Udai Sinha, S. Ali Ahmed, V. P. Sinha, Brishketu Saran Sinha, P. S. Sahay, Syed S. Hasan, Sateyeshwar Rai, U. C. Sharma, M. P. Verma, Binodanand Singh, Nazir Ahmed, Yadhu Nath Saran Singh, S. Narayan, R. P. Sinha, A. K. Sinha, S. N. Jha, S. B. Sanyal, K. B. Sinha, A. P. Sinha, R. N. Thakur, P. S. Mishra, B. P. Griyaghe, M. M. Prasad, A. Singh, R. N. Prasad, C. N. Tiwari, C. S. S. Sinha.

Public Service Commission

Chairman: Dr. Kumar Bimal

Members : Yogesh Chandra Murmu, K. M. Zuberi, Dr. Sidheshwar Prasad, Dr. B. P. Singh, Villat Paswan 'Vihangam', Dr. Janardan Kumar, Bachaspati Thakur and S. C. Roy.

Chief Secretary : S. K. Mukherjee

Area, Population and Headquarters of Districts

District	Area (sq km)	Population	Headquarters
1. Patna	3,182	30,31,463	Patna
2. Nalanda	2,346	16,38,364	Biharsharif
3. Gaya	6,525	31,38,316	Gaya
4. Nawadah	2,500	10,99,067	Nawadah
5. Aurangabad	3,319	12,36,528	Aurangabad
6. Bhojpur	4,024	23,89,658	Arrah
7. Rohtas	7,296	23,63,905	Sasaram
8. Saran	2,623	20,74,287	Chapra
9. Siwan	2,230	17,78,050	Siwan
10. Gopalganj	2,019	13,61,555	Gopalganj
11. Champaran East	4,334	24,27,749	Motihari
12. Champaran West	4,862	19,67,597	Bettiah
13. Sitamarhi	2,659	19,29,827	Sitamarhi
14. Muzaffarpur	3,160	23,53,283	Muzaffarpur
15. Vaishali	2,080	16,61,512	Hajipur
16. Darbhanga	2,296	20,04,583	Darbhanga
17. Madhubani	3,527	23,24,074	Madhubani
18. Samastipur	2,256	21,16,741	Samastipur
19. Saharsa	4,093	2,05,418	Saharsa
20. Purnea	7,004	35,92,637	Purnea
21. Katihar	3,101	14,27,197	Katihar
22. Begusarai	1,889	14,56,512	Begusarai
23. Monghyr	6,454	25,41,148	Monghyr
24. Bhagalpur	5,656	2610,719	Bhagalpur
25. Santhal Pargana	14,129	37,07,160	Dumka
26. Palamau	12,677	19,16,152	Daltonganj
27. Hazaribagh	11,152	21,95,735	Hazaribagh
28. Giridih	6,907	17,30,478	Giridih
29. Ranchi	18,331	30,59,362	Ranchi
30. Dhanbad	2,994	21,04,381	Dhanbad
31. Singhbhum	13,447	28,59,260	Chaibasa
32. Khagaria	1,474	7,73,658	Khagaria
33. Madhepura	1,792	9,46,816	Madhepura

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GUJARAT

Area : 1,96,024 sq km
Capital : Gandhinagar
Population : 3,40,85,799
Principal language : Gujarati

AGRICULTURE

Gross irrigated area forms 20.8 per cent of the gross cropped area while net irrigated was 20.1 per cent of the net sown area during 1979-80.

Production of foodgrains was 50.89 lakh tonnes in 1981-82 as against 44.76 lakh tonnes in 1980-81. Production of sugarcane was 5.02 lakh tonnes in terms of *gur*, cotton 20.95 lakh bales and oil seeds 27.48 lakh tonnes in 1981-82.

Against the desired coverage of 33 per cent of the land under forests, Gujarat has barely 10 per cent of its land area under forests. Important tree species available are teak, *khair, sadad, haldarvo* and *manval* bamboos. To increase tree cover, an ambitious community forestry project has been launched with the assistance from the World Bank. Farm forestry has also become popular with farmers. The state has created 4 national parks and 11 sanctuaries by utilizing 20 per cent of the forest area.

INDUSTRY

Textiles including ginning and pressing of cotton, heavy chemicals such as caustic soda and soda ash, petro-chemicals, drugs and pharmaceuticals, dyes and intermediate electronic and electrical goods, engineering goods, machine tools, cement and sugar are some of the important industries.

Gujarat has three major soda ash production units. Their total output accounts for about 85 per cent of the total production of the country. Gujarat is a major salt producing state and its production forms as much as 60 per cent of the country's total output.

Extensive exploration and production of oil and natural gas on commercial basis in Ankleshwar, Cambay and Kalol areas has put Gujarat already on the country's oil map. The setting up of the oil refinery at Koyali has led to considerable development of the petro-chemicals industries in this area. The Olefin complex set up by the Indian Petro-chemicals Corporation Ltd. is a major development in this field. Another petro-chemicals complex based on natural gas is under planning near Surat. The Central Government is setting up a fertilizer complex at Hajira in Surat district. IFFCO is engaged in the production of fertilizers at Kalol and Kandla.

There are 6 major cement plants in the state with a total installed capacity of 35 lakh tonnes per annum. A joint sector company, Narmada Cement Co. promoted by the government, has gone into production. Three more proposed cement plants have been sanctioned. Thirty six mini cement plants are also coming up.

The dairy industry has made tremendous progress. The state accounts for nearly 63 per cent of the baby-food and 47 per cent of milk powder produced in the country.

Ship building industry is developing fast at Alang near Bhavnagar.

The exclusive electronics estate at Gandhinagar has reached the take off stage. Many large and medium scale units are coming up, apart from over 150 small scale units. Gujarat Communication and

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Electronics Ltd., (GCEL), Vadodara, a government owned company has its expansion plants at Gandhinagar.

IRRIGATION AND POWER

Important major irrigation projects completed since 1947 include Ukai, Kadana, Kakrapara, Mahi Right Bank Canal Project-I, Shetrunji, Dantiwada, Hathmati, Meshwa and Bhadar. Besides, reservoirs have been constructed on Sabarmati at Dharoi and the Panam near Kel-Dear. Works on Damanganga, Karjan, Sukhi, Watrak and Sipu projects are in full swing and preliminary works on Sardar Sarovar (Narmada) project are in progress.

The total installed capacity, both hydel and thermal at present, is 2,770 mw. In all 14,024 villages have been electrified and the energisation of wells has gone up to 2,61,761.

GOVERNMENT

Governor: K. M. Chandy

Council of Ministers

Chief Minister: Madhavsinh Solanki

Cabinet Ministers: Sanat Mehta, Prabodh Raval, Amarsinh Chaudhary, Manoharsinhji Jadeja, Mahant Vijaydasji and Khodidan Jhula.

Ministers of State: Smt. Kokilaben Vyas, Mohammed Surti, Devjibhai Vanvi Harihar Khambholja and Maganbhai Solanki.

Legislative Assembly

Speaker: Natwar Lal Shah

Deputy Speaker: Ramnikbhai Dhami

High Court

Chief Justice: P. D. Desai

Judges: B. K. Mehta, N. H. Bhatt, A. M. Ahmedi, R. C. Mankad, S. B. Majumdar, G. T. Nanavati, V. V. Bedarkar, D. H. Shukla, S. L. Talati, D. C. Gheevala, I. C. Bhatt, A. P. Ravani, A. S. Qureshi, M. B. Shah, R. J. Shah and S. A. Shah.

Public Service Commission

Chairman: K. N. Zutshi

Members: M. J. Chaudhri and D. L. Munim

Chief Secretary : K. Shivaraj

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km.)	Population	Headquarters
1. Ahmadabad	8,707	38,75,794	Ahmadabad
2. Amreli	6,760	10,79,097	Amreli
3. Banaskantha	12,703	16,67,914	Palanpur
4. Bharuch	9,038	12,96,451	Bharuch
5. Bhavnagar	11,155	18,79,340	Bhavnagar
6. Gandhinagar	649	2,89,088	Gandhinagar
7. Jamnagar	14,125	13,93,076	Jamnagar
8. Junagadh	10,607	21,00,709	Junagadh
9. Kheda	7,194	30,15,027	Kheda
10. Kachchh	45,652	10,50,161	Bhuj
11. Mahesana	9,027	25,48,787	Mahesana
12. Panchmahals	8,866	23,21,689	Godhra
13. Rajkot	11,203	20,93,094	Rajkot
14. Subarkantha	7,390	15,02,284	Himatnagar
15. Surat	7,657	24,93,211	Surat
16. Surendranagar	10,489	10,34,185	Surendranagar
17. Dangs	1,764	1,13,664	Ahwa
18 Vadodara	7,794	25,58,092	Vadodara
19. Valsad	5,244	17,74,136	Valsad

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HARYANA

Area : 44,212 sq km
Capital : Chandigarh
Population : 1,29,22,618
Principal language : Hindi

AGRICULTURE

Agriculture production has risen progressively following the building of the infrastructure since the inception of the state. The production of foodgrains, sugarcane (*gur*), oil seeds and cotton rose from 25.92 lakh tonnes, 5.10 lakh tonnes, 0.92 lakh tonnes and 3.05 lakh bales of 170 kg each in 1966-67 to 60.57 lakh tonnes, 5.84 lakh tonnes, 1.51 lakh tonnes and 6.80 lakh bales of 170 kg each respectively in 1981-82. Fertilizer (nutrients) consumption increased from 13,347 tonnes in 1966-67 to 2,52,574 tonnes in 1981-82. Number of tubewells and tractors increased from 25,311 and 4,803 in 1966-67 to 3,43,467 and 57,892 in 1981-82 respectively. This has resulted in the increase of area under high yielding varieties of foodgrains from 0.16 lakh hectares in 1966-67 to 23.88 lakh hectares in 1981-82.

A special forestry programme for raising wind breaks and shelter belts is being implemented in the desert affected districts of Mahendragarh, Bhiwani, Rohtak, Hissar and Sirsa by pasture development and afforestation on community and panchayat lands. As against 1.59 crore in 1980-81, 8.51 crore saplings were planted in 1982-83.

A World Bank aided social forestry project costing Rs 33 crore was launched in the state in 1982-83 with the prime objective of increasing the supply of fuelwood to rural areas. The project will provide seasonal employment, estimated at 17 million mandays and create 1,420 permanent jobs over five years.

The total area under forests in 1981-82 was 1,696 sq km.

INDUSTRY

Major industries are cement, sugar, paper, cotton, textiles, glassware, brassware, cycles, tractors, motor cycles, time-pieces, automobile tyres and tubes, sanitaryware, television sets, steel tubes, hand tools, cotton yarn, refrigerators, vanaspati and canvas shoes, etc. The Hindustan Machine Tools, a Central Government undertaking, producing tractors, is located at Pinjore.

At present, there are more than 41,000 small scale and 301 large and medium scale industrial units. Exports rose to Rs 150 crore in 1982-83.

Minerals found are limestone, slate, dolomite, building stone, road metals, china clay and marble. However, occurrence of graphite and quartzites has been reported at several places in the state.

IRRIGATION AND POWER

Haryana is beneficiary of the multipurpose projects on Sutlej and Beas, where it shares the benefits with Punjab and Rajasthan. The major irrigation projects include the Western Yamuna Canal, the Bhakra Canal System and the Gurgaon Canal. Water had to be raised in the state from lower to higher levels and drier slopes. It was a bold new endeavour that gave practical shape to lift irrigation for the first time in India. The state has completed Jui, Loharu and Sewani lift irrigation schemes. The Jawaharlal Nehru Lift Irrigation Scheme, the biggest of its kind, will be completed soon. With these, additional irrigation to 2,85,000 hectares will be achieved. Forty thousand hectares area in the drought-prone belt was covered by 1982-83. Haryana's best hope

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for irrigation lies in the Ravi-Beas waters. The state has constructed 91.15 km length of Sutlej Yamuna Link canal falling in its territory.

Installed capacity increased from 343 mw in 1967-68 to 1,192 mw in 1981-82. Actual availability of electricity increased from 5,801 lakh kwh to 37,789 kwh during the same period. The total number of consumers had gone up from 3,11,944 on 31 March 1967 to 13,46,223 on 31 March 1982 while consumption of electricity has increased from 5,016 lakh kwh to 29,994.11 lakh kwh during this period.

IMPORTANT TOURIST CENTRES

Important tourist centres are Raj Hans, Badkhal lake, Surajkund, Dabchik, Sultanpur, Barbet, Sohna, Pinjore, etc.

GOVERNMENT

Governor : G. D. Tapase

Council of Ministers

Chief Minister : Bhajan Lal

Cabinet Ministers : Shamsher Singh Surjewala, Col. Ram Singh, Rajender Singh, Parsani Devi, Shakuntala Bhagwaria, Birendra Singh, Katar Singh, Kalyan Singh and Brij Mohan.

Ministers of State : Lal Singh, Rajesh Kumar, Chanda Singh, Rahim Khan, Jagdish Nehra and Lachhman Dass Arora.

Legislative Assembly

Speaker : Tara Singh

Deputy Speaker : Ved Paul

High Court

Chief Justice : S. S. Sandhawalia

Judges : P. C. Jain, S. C. Mital, D. S. Tewatia, M. R. Sharma, R. N. Mittal, A. S. Bains, K. S. Tiwana, Surinder Singh, S. P. Goyal, C. S. Tiwana, J. M. Tandon, S. S. Diwan, J. V. Gupta, S. S. Kang, G. C. Mital, I. S. Tiwana, M. M. Punchhi, B. S. Yadav, S. S. Sodhi, K. P. S. Sandhu and Pritpal Singh

Public Service Commission

Chairman : Balbir Singh

Members : Daulat Ram, Ram Chander Madhia, Gurmesh Parkash Bishnoi and Raghubar Dayal

Chief Secretary : P. P. Caprihan

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Ambala	3,842	14,09,463	Ambala
2. Bhiwani	5,099	9,20,052	Bhiwani
3. Faridabad	2,150	10,00,859	Faridabad
4. Gurgaon	2,716	8,49,598	Gurgaon
5. Hissar	6,315	14,96,534	Hissar
6. Jind	3,306	9,38,074	Jind
7. Karnal	3,721	13,22,826	Karnal
8. Kurukshetra	3,740	11,30,026	Kurukshetra
9. Mahendragarh	3,010	9,59,400	Narnaul
10. Rohtak	3,841	13,41,953	Rohtak
11. Sirsa	4,276	7,07,068	Sirsa
12. Sonepat	2,206	8,46,765	Sonepat

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HIMACHAL PRADESH

Area : 55,673 sq km
Capital : Shimla
Population : 42,80,818
Principal languages : Hindi and Pahari

AGRICULTURE

Agriculture and horticulture are the mainstay of Himachal Pradesh's economy. About 76 per cent of the total working population is engaged in these occupations. Irrigated area forms about 20 per cent of the net area sown. The state is gifted with a variety of agro-climatic conditions due to different elevation zones which make it an ideal region for growing many kinds of fruit. Beside apples, excellent variety of plums, peaches and apricots are also grown. The climatic conditions are also suitable for growing cash crops like seed potatoes, ginger and vegetable seeds. Stress is being laid on the development of new crops like hops, olives, figs and mushrooms. Wheat, maize and rice are the major foodcrops.

Forests occupy 38 per cent of the area of the state. The main forest products include timber, fuel wood, gums and resin.

INDUSTRY

Gifted with vast natural resources, cheap power and labour, the state is now gradually making steady progress towards industrialisation. The number of registered small scale industrial units at the end of 1982 was over 6,000.

Among the major industries are Nahan Foundry, Nahan Resin and Turpentine factories at Nahan and Bilaspur in the public sector and a brewery at Solan in the private sector. Himalaya Fertilizers Ltd., another public sector undertaking, has started commercial production of NPK balanced granulated fertilizers. Besides, a television assembly plant at Solan Electronic Complex has already started commercial manufacturing of TV sets. The Cement Corporation is running a cement plant. One of the biggest fruit processing plants in Asia, at Parwanoo is in operation.

In the small scale sector microscopes, watch parts, clinical and industrial thermometers, hospital and heating equipments are being manufactured.

Among the village industries are sheep-rearing, wood carving and blacksmithy, spinning, weaving, leather tanning, pottery and bamboo craft.

To encourage industry, the Himachal Pradesh Mineral and Industrial Development Corporation, the Himachal Pradesh State Small Industries and Export Corporation, the Khadi and Village Industries Board and the Handicrafts and Handloom Corporation have been set up.

Industrial areas have been established at Barotiwala, Nagrota, Mehatpur, Paonta-Sahib, Bilaspur, Shamshie, Solan, Parwanoo and Peo and industrial estates at Solan, Dharampur, Kangra, Jawali, Mehatpur and Dehra.

Important minerals of the state are rock salt, slate, gypsum, limestone, barytes, dolomite and pyrites.

IRRIGATION AND POWER

A Rs 7 crore medium Giri irrigation scheme, the largest irrigation project in the state, was completed in January 1981. Among the major power projects Giri Hydel Project, is in operation. Other power projects in hand are : Rukti Hydel Project in Kinnaur district, Rongtong

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Hydel Scheme in Lahaul and Spiti district, Bassi Augmentation Project in Mandi district, Bhabha Hydel Project in Kinnaur district, Binwa Hydel Project in Kangra district, Andhra Hydel Project and Nathpa Jhakri Project both in Shimla District.

About 11,220 villages out of a total of 16,916 have been electrified upto March 1982.

IMPORTANT TOURIST CENTRES

Important tourist centres are : Parwanoo, Shimla, Chail, Manali, Dalhousie and Dharamsala.

GOVERNMENT

Governor : Hokishe Sema

Council of Ministers

Chief Minister : Virbhadra Singh

Cabinet Ministers : Sukh Ram, Sant Ram, Guman Singh, Shiv Kumar, Sat Mahajan and Devi Singh.

Legislative Assembly

Speaker : Thakur Sen Negi

High Court

Chief Justice : Hira Singh Thakur[1]

Judges : Tilak Raj Handa, Vyom Prakash Gupta

Public Service Commission

Chairman : J. C. Malhotra

Member : Anang Paul

Chief Secretary : K. C. Pandeya

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Bilaspur	1,167	2,47,368	Bilaspur
2. Chamba	6,528	3,11,147	Chamba
3. Hamirpur	1,118	3,17,791	Hamirpur
4. Kangra	5,739	9,90,758	Dharamsala
5. Kinnaur	6,401	59,547	Kalpa
6. Kulu	5,503	2,38,734	Kulu
7. Lahaul and Spiti	13,835	32,100	Keylong
8. Mandi	3,950	6,44,827	Mandi
9. Shimla	5,131	5,10,932	Shimla
10. Sirmaur	2,825	3,06,952	Nahan
11. Solan	1,936	3,03,280	Solan
12. Una	1,540	3,17,422	Una

JAMMU AND KASHMIR

Area : 2,22,236 sq km
Capital : Srinagar (Summer)
Jammu (Winter)

Population : 59,87,389
Principal languages : Kashmiri Dogri, Urdu, Balti, Gojri, Punjabi, Dardiro, Pahari and Ladakhi.

2,22,236 sq km (provisional geographical area); of this 78,114 sq km under illegal occupation of Pakistan and 5,180 sq km illegally handed over by Pakistan to China and 37,555 sq km under illegal occupation of China.

[1]Appointed on 1 October 1983

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AGRICULTURE

Agriculture is the main source of income in the state. About 80 per cent of the population depends on it. Paddy, wheat and maize are the major crops. Barley, *bajra* and *jowar* are cultivated in some parts. Gram is grown in Ladakh. The state expects to be self sufficient in food by the Sixth Plan, when production is likely to touch 17.50 lakh quintals.

Forests yield substantial revenue. They also offer considerable potential for industrial development. The state has a forest area of 21,080 sq km, of which 7,477 sq km are available for timber, rest are protective forests.

INDUSTRY

The medium and small sectors receive emphasis as the geographical constraints do not favour large scale industries. Preference is given to local entreprenuers, while industrialists from outside the state are encouraged to invest in areas where local entrepreneurship in not forthcoming or technical expertise is not available.

The Bari Brhamna Complex in Jammu is the biggest industrial estate in the state. It covers 128 hectares and accommodates diverse manufacturing units. The industries which have come up are : scooter factory, three resin based factories for down stream products, two pencil factories, two vanaspati mills and a cement factory.

A cement plant has been commissioned at Khrew. An electronic complex in Rengreth is in operation. District industries centres have been set up in all districts to provide facilities to the entrepreneurs under one roof.

IRRIGATION AND POWER

The installed capacity of power has risen from 6.5 mw in 1947 to 209 mw at present. The state has a potential to produce 10,000 mw of hydel power by Sixth Plan. The number of villages electrified in 1982 is 6,225 against 4,633 in 1979-80. The major and medium irrigation potential ending 1980-81 was 3.25 hectares supplemented by an equal potential of minor irrigation.

GOVERNMENT

Governor : B. K. Nehru

Council of Ministers

Chief Minister : Farooq Abdullah

Cabinet Ministers : Gulam Mohiuddin Shah, Pyare Lal Handoo, Bodh Raj Bali, Mohammed Shafi, Abdul Raheem Rather, Hakim Habibullah

Minister of State : Jagjivan Lal

Legislative Assembly

Speaker : Wali Mohammed Itoo

Public Service Commission

Chairman : Mufti Mohammed Maqbool

Members : Sajida Zamir Ahmed, G. N. Drabu, Teja Singh, T. N. Gupta

High Court

Chief Justice : V. Khalid

Judges : A S. Anand, G. M. Mir and I. K. Kotwal

Chief Secretary : Noor Mohammad

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AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Population	Headquarters
1. Anantnag	6,56,351	Anantnag
2. Pulwama	4,04,078	Pulwama
3. Srinagar	7,08,328	Srinagar
4. Badgam	3,67,262	Badgam
5. Baramula	6,70,142	Baramula
6. Kupwara	3,28,743	Kupwara
7. Kargil	65,992	Kargil
8. Leh (Ladakh)	68,380	Leh
9. Doda	4,25,262	Doda
10. Udhampur	4,53,636	Udhampur
11. Kathua	3,69,123	Kathua
12. Jammu	9,43,395	Jammu
13. Rajauri	3,02,500	Rajauri
14. Punch	2,24,197	Punch

Note : The population figures exclude population of areas under unlawful occupation of Pakistan and China where census could not be taken.

KARNATAKA

Area : 1,91,791 sq km
Capital : Bangalore
Population : 3,71,35,714
Principal language : Kannada

AGRICULTURE

Karnataka is predominantly agricultural. Of the net area sown 98.99 lakh hectares, 13.75 per cent is irrigated. Major food crops are rice, *ragi, jowar,* wheat, millets and pulses. The main cash crops are sugarcane, cotton, oilseeds, tobacco, coconut, arecanut, coffee, cashew, cardamom, pepper and grapes.

Forest area is 38,384 sq km which accounts for 20 per cent of the area of the state. High quality timber, sandalwood, eucalyptus, teak-wood and bamboo are major products. Other forest products are high quality rosewood, softwood suitable for industrial purposes and other valuable timbers.

INDUSTRY

There are a number of big industries. Machine tools, aircraft, electronic products, watches and telecommunication equipment are some of the items produced. Important Union Government undertakings engaged in the production of these items are Hindustan Aeronautics, Hindustan Machine Tools, Bharat Earth Movers, Bharat Electronics, Indian Telephone Industries and National Aeronautical Laboratory. The State-owned Viswesvaraya Iron & Steel Ltd., Bhadravathi, produces special steel and alloy steel. Kudremukh Iron Ore Project is another major development project. Other flourishing industries are textiles, sugar, soap, chemical and pharmaceutical goods, fertilizer, paper, cement, glass, ceramics, porcelain and electrical goods.

Karnataka accounts for 85 per cent of the raw silk produced in the country. Apart from silk, its sandal soap and sandal oil are well known in world markets.

The state is rich in mineral resources. Important among them are high grade iron ore, copper, manganese, chromite and china clay. Karnataka is the only state where gold mining is carried on.

IRRIGATION AND POWER

Karnataka has two large river basins, those of Krishna and Cauvery, besides a number of other rivers used both for irrigation and power generation. The important irrigation schemes are Tungabhadra, Ghataprabha, Malaprabha, Upper Krishna, Bhadra, Harangi, Kabini, Hemavathi and Bennethora projects.

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The major power projects are Sharavathi hydro-electric project, Shivasamudram hydro-electric project and the power project on Kali river, now under construction. The installed power capacity was 1,739.8 mw in 1981-82. The number of electrified villages (including hamlets) stood at 21,803 at the end of March 1982. For irrigation, 3,32,416 pumpsets/tubewells had been energised.

GOVERNMENT

Governor : Ashok Nath Bannerjee

Council of Ministers

Chief Minister : Ramakrishna Hegde

Cabinet Ministers : S. R. Bommai, H. D. Deve Gowda, Abdul Nazir Sab, B. Rachaiah, V. L. Patil, A. Lakshmisagar, Smt. Chandraprabha Urs, B. L. Gowda, J. H. Patel, Azeez Sait, R. L. Jalappa, Viswanatha Reddy, M. Chandrashekar, C. Basavanappa, M. Raghupathi.

Ministers of State : R. Jivijaya, H. P. Prakash, Dr. Jeevaraj Alva, S. Revanna, P. G. R. Sindhia, J. Ramesh, R. N. Lakshmipathy, P. Rajavardhan.

Legislative Council

Chairman : K. Rahman Khan

Deputy Chairman : A. B. Malaka Reddy

Legislative Assembly

Speaker : D. B. Chandregowda

Deputy Speaker : Veeranna

High Court

Chief Justice : K. Bhimaiah

Judges : V. S. Malimath, K. Jagannatha Shetty, M. S. Nesargi, M. N. Venkatachalaiah, M. Rama Jois, N. Venkatachala, K. S. Puttaswamy, P. P. Bopanna, N. R. Kudoor, G. N. Sabhahit, M. D. Venkatesh, M. P. Chandrakantha Raj Urs, M. S. Patil, R. S. Mahendra, K. A. Swamy, D. R. Vittal Rao, P. A. Kulkarni, A. K. Laximeshwar, S. G. Doddakale Gowda, M. Ramakrishna, S. R. Rajasekhara Murthy.

Public Service Commission

Chairman : M. L. Chandrashekar

Members : T. R. Parmeswaraiah, N. M. Lingaraju, Smt. Ophelia Rebello, M. I. Peer.

Chief Secretary : T. R. Satishchandran

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Bangalore	8,005	49,21,828	Bangalore
2. Belgaum	13,415	29,74,861	Belgaum
3. Bellary	9,885	14,87,062	Bellary
4. Bidar	5,448	9,94,106	Bidar
5. Bijapur	17,069	23,99,124	Bijapur
6. Chikmagalur	7,201	9,08,626	Chikmagalur
7. Chitradurga	10,852	17,74,717	Chitradurga
8. Dakshina Kannada	8,441	23,73,359	Mangalore
9. Dharwad	13,738	29,39,998	Dharwad
10. Gulbarga	16,224	20,75,368	Gulbarga
11. Hassan	6,814	13,51,923	Hassan
12. Kodagu	4,102	4,60,164	Mercara
13. Kolar	8,223	18,98,984	Kolar
14. Mandya	4,961	14,14,383	Mandya
15. Mysore	11,954	25,84,878	Mysore
16. Raichur	14,017	17,79,942	Raichur
17. Shimoga	10,553	16,57,564	Shimoga
18. Tumkur	10,598	19,75,331	Tumkur
19. Uttara Kannada	19,291	10,71,243	Karwar

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KERALA

Area : 38,863 sq km
Capital : Trivandrum
Population : 2,54,53,680
Principal language : Malayalam

AGRICULTURE Irrigated cropped area forms 12.71 per cent of the total cropped area in Kerala. The state has abundance of cash crops. Cashewnut, arecanut, coconut, cotton, oilseeds, pepper, sugarcane, rubber, coffee, tea, cocoa, ginger and cardamom are grown extensively. Rice and tapioca are important food crops.

Forests occupy 24 per cent of the area of the state. The forest wealth consists of some well-known varieties of timber, such as teak, blackwood, ebony, softwood and rosewood, which are in great demand abroad. The state contributes a major share of sea-fish production of the country.

INDUSTRY Important industries are coir, cashew, rubber, tea, ceramics, electrical and electronic appliances, telephone cables, transformers, bricks and tiles, drugs and chemicals, general engineering, plywood, splints and veneers, *beedi* and cigar, soaps, oils and fertilizers.

In recent years, a number of manufacturing units have sprung up for producing precision instruments, machine tools, petroleum and petroleum products, fertilizers and allied products, paints, aluminium, communication cables, rubber, rayon, pulp, paper, plywood, newsprint, glass and non-ferrous metals.

Principal export products are cashewnut, tea and coffee, pepper and other spices, lemongrass oil, seafoods, rosewood, coir and coir products and rubber products.

Important minerals found in the state are : ilmenite, rutile, monazite, zircon, sillimanite and clays and quartz sand.

IRRIGATION AND POWER Major irrigation projects implemented since 1947 are Chalakudy, Peechi, Malampuzha, Neyyar, Pothundy, Gayathri/Walayar, Vazhani, Mangalam, and Cheerakuzhy besides the on-going projects at Kallada, Pamba, Periyar Valley, Chitturpuzha, Kanhirampuzha, Kuttiadi, Pazhassi, Muvattupuzha, Chimony, Attapady, Karapuzha, Meenachil and Idamalaya. Important power projects are Pallivasal, Sengulam, Neriamangalam, Panniar, Peringalkuthu, Sholayar/Sabarigiri, Kuttiyadi and Idukki.

Heavy rainfall and a large number of swift flowing rivers and streams provide considerable potential for power generation. The total power generation in 1981-82 was 5,539 mkwh as against 5,242 mkwh in 1980-81.

The per capita consumption of power in 1981-82 was 115 kwh as against 96.47 kwh in 1980-81.

GOVERNMENT *Governor* : P. Ramachandran

Council of Ministers

Chief Minister : K. Karunakaran

Deputy Chief Minister : K. A. Naha

Cabinet Ministers : E. Ahmed, R. Balakrishna Pillai, U. A. Beeran M. P. Gangadharan, T. M. Jacob, P. J. Joseph, M. Kamalam, K. M. Mani, K. P. Noorudeen, K. Sivadasan, N. Sreenivasan, C. M. Sunda-

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ram, Vayalar Ravi, A. L. Jacob, K. P. Ramachandran Nair, N. Sundaram Nadar and P. K. Velayuddan.

Legislative Assembly

Speaker : Vakkom B. Purushothaman

Deputy Speaker : T. K. Hamsakunju

High Court

Chief Justice : P. Subramanian Potti

Judges : K. Bhaskaran, V. Sivaraman Nair, S. Paripoornan, T. Chandrasekhara Menon, K. K. Narendran, G. Balagangadharan Nair, S. K. Kader, T. Kochuthomman, M. P. Menon, P. C. Balakrishna Menon, U. L. Bhat and K. Sukumaran.

Public Service Commission

Chairman : M. K. Hemachandran

Members : M. C. Cyriac, P. Balagopalan, Thengamom Balakrishnan, K. V. Kurian, Hamid Ali Shamnad, R. K. Venu Nair and R. S. Ramakrishnan.

Chief Secretary : R. Gopalaswamy

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Alleppey	1,884	23,42,852	Alleppey
2. Cannanore	4,929	28,00,055	Cannanore
3. Ernakulam	2,377	25,33,265	Ernakulam
4. Idukki	5,087	9,71,193	Idukki
5. Kottayam	2,196	16,81,104	Kottayam
6. Kozhikode	2,338	22,43,004	Kozhikode
7. Malappuram	3,638	24,01,229	Malappuram
8. Palghat	4,400	20,41,912	Palghat
9. Quilon	4,623	28,07,223	Quilon
10. Trichur	3,032	24,36,975	Trichur
11. Trivandrum	2,182	25,91,057	Trivandrum
12. Wynad	2,125	5,53,348	Kalpetta
13. Pathanamthitta[1]	—	—	Pathanamthitta

MADHYA PRADESH

Area : 4,43,446 sq km — *Population* : 5,21,78,844
Capital : Bhopal — *Principal language* : Hindi

AGRICULTURE

The economy of Madhya Pradesh is primarily agriculture based. Nearly 83 per cent of the population live in villages. Over 42.5 per cent of the land area is cultivable, of which 13 per cent is under irrigation. The Malwa region abounds in rich black cotton soil; the low lying areas of Gwalior, Bundelkhand, Baghelkhand and the Chhatisgarh plains have lighter soil, whereas the Narmada valley is formed of deep rich alluvial deposits. The main food crops are *jowar*, wheat and rice and coarse grains such as *kondo, kutki, soma,* etc. Important among the commercial crops are oilseeds, cotton and sugarcane. In agriculure the state is poised for a breakthrough in soyabean cultivation.

Forests cover nearly 37 per cent of the total area of the state. The forests are chiefly of teak, *sal, saja, salai, baheda, harra, mahua,* etc.

[1]Newly created district.

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INDUSTRY

The major industries established in various parts of the state are: the steel plant at Bhilai; the Bharat Heavy Electricals at Bhopal; the Bharat Aluminium plant at Korba; the Security Paper mill at Hoshangabad; the currency printing press at Dewas; the Newsprint Mill at Nepanagar; Orient Paper Mill at Amlai; Alkaloid factory at Neemuch, cement factories at Kymore, Jamul, Banmore, Maihar, Satna, Tilda, Neemuch, Akaltara, Gopalnagar, Narsingharh (Damoh), Mandhar; bakery unit, Indore; leather goods factory, Dewas; Explosives factory, Korba and Vehicle factory, ordnance factory and gun carriage factory and posts and telegraphs workshops, all in Jabalpur. There are in all 23 textile mills in the state, seven of them are nationalised. The number of heavy and medium industries in the state is 225 and the number of small scale industries in production is 1,03,260. Five big plants based on soyabean are also being established in the state. Thirty-nine out of 45 districts in the state are categorised as industrially backward districts.

The state is known for its traditional village handicrafts. Handloom weaved at Chanderi and Maheshwar are famous. Attractive handicrafts are made by the tribals of the state.

Madhya Pradesh is blessed with bountiful mineral wealth of which particular mention may be made of high grade limestone, dolomite, iron ore, manganese ore, copper ore, coal, rock phosphate and bauxite. The state is the sole producer of diamonds and tin ore. An extensive programme has been undertaken to explore the gold deposits in Raipur and Raigarh districts.

IRRIGATION AND POWER

The irrigation potential of the state from all sources is around 16 per cent. There are 7 major river systems in the state. The development plan of the state has accorded a vey high priority to irrigation. During the Sixth Plan, it is proposed to create an irrigation potential of 8.5 lakh hectares.

At present 22 major projects are in full swing of which 6 are multipurpose *viz.* Chambal, Rajghat, Bansagar, Mahanadi Reservoir, Hasdeo-Bango and Bargi. Sixteen major projects, viz. Tawa, Barna, Hasdeo Right Bank Canal, Upper Wainganga. Bariarpur Left Bank Canal, Urmil, Kolar, Sindh Phase-I, Bhander Canal, Halai, Sukta, Pairi, Kodar, Jonk, Rangwam *HLC* and Thanwar costing Rs 338 crore and having designed potential of 8.65 lakh hectares are in the advanced stage of construction.

At present two major projects, 17 medium and 791 minor schemes estimated to cost Rs 214 crore having irrigation potential of 4.09 lakh hectares are in progress under Tribal Sub-Plan Scheme.

IMPORTANT TOURIST CENTRES

Some of the important tourist centres are : Gwalior, Khajuraho, Sanchi, Vidisha, Udayeshwar, Udaigiri, Orchha, Sirpur, Ujjain, Rajim, Amarkantak, Bhedaghat Marble Rocks-Jabalpur, National Parks at Kanha, Shivpuri and Bandhavgarh.

GOVERNMENT

Governor : Bhagwat Dayal Sharma

Council of Ministers

Chief Minister : Arjun Singh

Deputy Chief Minister : Shiv Bhānu Solānki

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Cabinet Ministers : Km. Vimla Verma, Krishnapal Singh, Jhumuklal Bhendia, Dr. Tumanlal, Muni Prasad Shukla, Digvijay Singh, Bhanwar Singh Porte, Mankuram Sodhi, Hazi Inayat Mohammad, Tara Singh Viyogi, Dr. K. L. Sharma, Revnath Chaure, B. R. Yadav, Banshilal Dhritlahare, Ajay Narayan Mushran, Dr. Rajendra Kumar Jain, Smt. Devendra Kumari and Moti Lal Vora.

Ministers of State : Nathuram Ahirwar, Durga Das Suryavanshi, Smt. Kamla Devi, Vijay Guru, Balendu Shukla, Vijay Kumar Patni, Vithalbhai Patel, Tanwant Singh Keer, Satya Narayan Agrawal, Km. Ganga Potai, Bharat Singh and Pratap Singh Baghel.

High Court

Chief Justice : Guru Prasanna Singh

Judges : G. L. Oza, K. K. Dube, J. S. Varma, M. L. Malik, U. N. Bhachawat, C. P. Sen, S. S. Sharma, B. C. Varma, S. K. Seth, Faizuddin, M. D. Bhatt, G. G. Sohani, P. D. Muley, H. G. Mishra, C. P. Singh, R. K. Vijayvargiya, K. N. Shukla, R. L. Murab, A. R. Navkar, R. C. Shrivastava, N. K. Singha, K. K. Adhikari and Gulab Gupta.

Public Service Commission

Chairman : N. Sundaram

Members : V. S. Keshar, V. P. S. Chauhan, Smt. Razia Sultan Alim, Dr. S. M. Mishra, M. B. Peter and Jiwanlal Sao

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Morena	11,594	13,01,254	Morena
2. Bhind	4,459	9,69,920	Bhind
3. Gwalior	5,214	11,11,145	Gwalior
4. Datia	2,038	3,11,640	Datia
5. Shivpuri	10,278	8,65,386	Shivpuri
6. Guna	11,065	9,97,025	Guna
7. Tikamgarh	5,048	7,36,512	Tikamgarh
8. Chhatarpur	8,687	8,85,843	Chhatarpur
9. Panna	7,135	5,39,864	Panna
10. Sagar	10,252	13,21,918	Sagar
11. Damoh	7,306	7,21,107	Damoh
12. Satna	7,502	11,52,209	Satna
13. Rewa	6,314	12,05526	Rewa
14. Shahdol	14,028	13,43,917	Shahdol
15. Sidhi	10,526	9,88,929	Sidhi
16. Mandsaur	9,791	1,262,410	Mandsaur
17. Ratlam	4,861	7,83,?84	Ratlam
18. Ujjain	6,091	11,16,270	Ujjain
19. Shajapur	6,196	8,40,093	Shajapur
20. Dewas	7,020	7,94,446	Dewas
21. Jhabua	6,782	7,95,834	Jhabua
22. Dhar	8,153	10,55,826	Dhar
23. Indore	3,898	14,05,904	Indore
24. West Nimar	13,450	16,30,682	Khargone
25. East Nimar	10,779	11,54,830	Khandwa
26. Rajgarh	6,154	8,01,554	Rajgarh
27. Vidisha	7,371	7,83,349	Vidisha
28. Bhopal	2,772	8,95,815	Bhopal
29. Sehore	6,578	6,56,982	Sehore
30. Raisen	8,466	7,08,973	Raisen
31. Betul	10,043	9,24,215	Betul
32. Hoshangabad	10,037	10,03,291	Hoshangabad

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District	Area	Population	Headquarters
33. Jabalpur	10,160	21,99,138	Jabalpur
34. Narsinghpur	5,133	6,49,701	Narsinghpur
35. Mandla	13,269	10,36,134	Mandla
36. Chhindwara	11,815	12,32,735	Chhindwara
37. Seoni	8,758	8,09,502	Seoni
38. Balaghat	9,229	11,47,719	Balaghat
39. Surguja	22,337	16,31,075	Ambikapur
40. Bilaspur	19,897	29,52,086	Bilaspur
41. Raigarh	12,924	14,42,041	Raigarh
42. Rajnandgaon	11,127	11,66,475	Rajnandgaon
43. Durg	8,537	18,89,929	Durg
44. Raipur	21,258	30,75,430	Raipur
45. Bastar	39,114	18,40,449	Jagdalpur

MAHARASHTRA

Area : 3,07, 690 sq km
Capital : Bombay
Population : 6,27,84,171
Principal language : Marathi

AGRICULTURE About 70 per cent of the people in Maharashtra depend on agriculture. About12.2 per cent of the total cultivated area is irrigated. The principal food crops are wheat, rice, *jowar,* maize, *bajra* and pulses. Important cash crops are cotton, sugarcane, groundnut and tobacco. Of the total area, forests occupy 20 per cent.

INDUSTRY Maharashtra is endowed with sizeable deposits of iron ore, coal, manganese ore, bauxite and limestone. Manganese ore in the Vidarbha region has enabled the state to develop ferro-manganese industry. There is an electro-smelting factory in Chandrapur district.

There are several large-scale industries including textiles, ginning and pressing, silk, rayon, synthetic fabrics and vegetable products. Nasik, Aurangabad, Nagpur, Roha, Tarapur and Ahmednagar have come up as new industrial growth centres. Most of the textile mills are located in Bombay. Maharashtra is also a major sugar-producing state. Important chemical industries include nitrogenous fertilizers, superphosphates, petro-chemicals, drugs and pharmaceuticals and photographic chemicals. Emergence of oil fields at Bombay High and Bassein North and the new fertilizer unit at Thal-Vaishet near Alibag have given further boost to the petro-chemical industry in the state.

Various types of engineering goods, such as machine tools, steel and malleable iron castings, welding electrode, ball-bearings and agricultural implements are manufactured for domestic consumption as well as for export. Maharashtra leads in the motion picture industry. It also leads in the sophisticated field of electronics. Santacruz Electronics Export Processing Zone, a free trade zone for cent per cent export of electronic goods, has started functioning near the airport at Bombay.

IRRIGATION AND POWER Since 1947, nine major irrigation projects *viz.* Zir, Ghod, Girna, Purna, Pus, Bagh, Itiadoh, Kal and Tulshi have been completed. Irrigation potential on a large scale has been created on Mula, Upper Godavari and Javakwadi stage I projects. These projects are expected to be completed during the Sixth Plan. In addition, partial potential on

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eight more major projects *viz.* Kukadi, Bhima, Khadakwasla, Krishna, Manjra, Javakwadi stage II, Pench and Surya, has been created. During the Plan era of 29 years, 90 medium projects have been completed. Further, partial potential on 28 medium projects has been created.

The major hydro, thermal and nuclear power projects are Koyna, Tarapur, Tata Hydro, Nasik, Karadi, Bhusaval, Paras and Khaparkheda, Ballarshah and Parli. The derated installed capacity is 3,316 mw. Maharashtra had only 38 electrified villages in 1951, the number increased to 27,180 by 31 January 1981.

IMPORTANT TOURIST CENTRES

Some of the important tourist centres are: Ajanta, Ellora, Elephanta, Kanheri, Karla; hill stations like Mahabaleshwar, Matheran, and Panchgani. Prominent religious places are : Pandharpur, Nasik, Shirdi, Aundhanagnath, Nanded and Ganapatipule.

GOVERNMENT

Governor : I. H. Latif

Council of Ministers

Chief Minister : Vasantrao Banduji Patil

Deputy Chief Minister : Ramrao Wamanrao Adik

Cabinet Ministers : Prof. S. M. I. Aseer, P. B. Bhonsale, R. V. Borade, N. N. Embadwar, Shantaram G. Gholap, Dr. Baliram W. Hiray, Prof. N. M. Kamble, Sudhakar S. Naik, Surupsing H. Naik, Smt. Pratibha Devisinh Patil, Shivajirao B. Patil (Nilangekar), Dr. (Smt) Lalita Rao and Sushilkumar S. Shinde.

Ministers of State : Abdul Azeem, K. B. Awade, Smt. Yashodhara B. Bajaj, Surendra C. Bhuyar, Shivajirao B. Deshmukh, Vilasrao D. Deshmukh, Arun V. Divekar, G. N. Dudhgaonkar, R. B. Jamkar, K. M. Azhar Hussain, M. G. Kimmatkar, Smt. Parvati G. Malgonda, Arjun T. Pawar, Vijaysinh S. Mohite-Patil, Satish M. Pednekar, Abhyasinh S. Raje Bhonsale, Bhalchandra A. Sawant, Yeshwant G. Sherekar, Bajirao N. Shinde, A. N. Thopte, and Chandrakant Tripathi.

Legislative Assembly

Speaker : Sharad Dighe

Deputy Speaker : S. C. Jagtap

Legislative Council

Chairman : J. S. Tilak

Deputy Chairman : A. G. Pawar

High Court

Acting Chief Justice : M. N. Chandurkar

Judges : M. H. Kania, S. R. Desai, B. A. Masodkar, C. S. Dharmadhikari, P. S. Shah, D. M. Rege, R. L. Aggarwal, B. Lentin, P. B. Sawant, B. C. Gadgil, A. A. Ginwala (N), R. A. Jahagirdar, S. C. Pratap, M. P. Kanade (A), S. P. Bharucha, V. V. Joshi (N), Sujata Manohar, M. L. Pendse, S. P. Kurdukar, D. N. Mehta, V. S. Kotval, M. S. Jamdar (N), M. R. Waikar (N), S. G. Manohar, D. B. Deshpande (A), V. A. Mohta (N), N. K. Parekh, S. W. Puranik (N), S. J. Deshpande, M. M. Qazi (N), G. M. Khandekar (A), G. F. Couto (G), H. W. Dhabe (N), S. N. Khatri, A. D. Tated, H. H. Kantharia, G. A. Paunikar (N), H. D. Patel (N) and V. V. Vaze.

Public Service Commission

Chairman : Dr M. V. Suryawanshi

Members : Dr B. R. Bhonsle, S. H. Thaker, N. R. Mane and G. T. Gotkhinde.

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Chief Secretary : R. D. Pradhan

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Greater Bombay	603	82,27,332	Bombay
2. Thane	9,558	33,39,965	Thane
3. Raigad	7,148	14,83,459	Raigad
4. Ratnagiri	8,249	13,79,655	Ratnagiri
5. Sindhudurg	5,219	7,72,555	Kudal
6. Nasik	15,530	29,85,503	Nasik
7. Dhule	13,150	20,51,461	Dhule
8. Jalgaon	11,765	26,18,884	Jalgaon
9. Ahmadnagar	17,048	27,11,216	Ahmadnagar
10. Pune	15,642	41,62,284	Pune
11. Satara	10,484	20,41,409	Satara
12. Sangli	8,572	18,26,186	Sangli
13. Solapur	15,017	26,07,172	Solapur
14. Kolhapur	8,047	24,99,437	Kolhapur
15. Aurangabad	9,172	15,88,031	Aurangabad
16. Jalna	8,656	10,32,157	Jalna
17. Parbhani	12,561	18,26,742	Parbhani
18. Beed	11,085	14,84,424	Beed
19. Nanded	10,502	17,47,598	Nanded
20. Osmanabad	7,510	10,29,712	Osmanabad
21. Latur	7,304	12,93,442	Latur
22. Buldana	9,661	15,06,956	Buldana
23. Akola	10,575	18,25,027	Akola
24. Amravati	12,212	18,58,120	Amravati
25. Yavatmal	13,584	17,35,377	Yavatmal
26. Wardha	6,310	9,26,737	Wardha
27. Nagpur	9,931	25,82,281	Nagpur
28. Bhandara	9,213	18,36,234	Bhandara
29. Chandrapur	10,490	14,18,306	Chandrapur
30. Gadchizoli	15,433	6,37,336	Gadchizoli

MANIPUR

Area : 22,327 sq km
Capital : Imphal
Population : 14,20,953
Principal language : Manipuri

AGRICULTURE

The main occupation of 66 per cent of the population of Manipur is agriculture. Nearly 92 per cent of the total land area is hilly and covered with forests. The reserve forest area covers 1,377 sq km while the protected forest is spread in 4,171 sq km and the unreserved forest is in 9,606 sq km. Forest reserves are being developed by planting better species of timber. Bamboo is found in large quantities in the state. In the Jiri and Barak river drainage area alone, bamboos cover an estimated area of 2,585 sq km yielding 3,00,000 tonnes annually. Main crop is paddy, while wheat and maize are also grown in some areas. Double cropping and use of fertilizers and improved seeds are becoming popular. 2,10,000 hectares of land is under cultivation. Orchards have also been set up.

INDUSTRY

The state has no large scale industry. Handloom weaving is the largest single cottage industry. It is a major source of income of the people. Other cottage industries are: sericulture, bamboo and cane articles, carpentry, blacksmithy, leather goods, edible oil crushing, rice milling, *gur* and khandsari.

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To accelerate the development of small scale industries, an industrial advisory board is working and the jurisdiction of Assam Financial Corporation extended to Manipur.

IRRIGATION AND POWER

Irrigation is done mainly through minor irrigation works by constructing weirs across running streams for better distribution of water during the monsoon. There are 7 projects under major and medium irrigation programme.

Loktak is the only major power project in the state. The total installed capacity of power, both hydel and thermal was 14,837 kw in 1981-82. Manipur had only nine electrified villages before 1951, the number increased to 334 in October 1981.

GOVERNMENT

Governor : S. M. H. Burney

Council of Ministers

Chief Minister : Rishang Keishing

Deputy Chief Minister : I. Tompok Singh

Cabinet Ministers : Ngurdinglien, S. Lorho, K. Radhabinod Singh, Debendra Singh, Holkhomang Haokip, Md. Muhamuddin Shah, Dr. L. Chadramani Shah and T. Puninkanta Singh.

Ministers of State : Raj Mohan Singh, Holkholet Khongsai, H. Lokhon Singh, K. Vungzalian, H. Kangjamba Singh, Gaikhagam and Phungazathang.

Legislative Assembly

Speaker : Y. Yaima Singh

Deputy Speaker : W. Angou Singh

High Court

The Jurisdiction of Gauhati High Court extends over Manipur. For list of judges, see under Assam.

Chief Secretary : D. N. Barua

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Manipur Central	2,230	9,38,684	Imphal
2. Manipur East	4,409	82,129	Ukhrul
3. Manipur North	3,417	1,58,741	Senapati
4. Manipur South	4,581	1,38,149	Churachandpur
5. Manipur West	4,344	60,359	Tamenglong
6. Tengnoupal	3,375	55,629	Chandel

MEGHALAYA

Area : 22,429 sq km *Population* : 13,35,819
Capital : Shillong *Principal languages* : Khasi, Garo and English

AGRICULTURE

Over 80 per cent of the people of Meghalaya are engaged in agricultural pursuits. Irrigated area is about 22.35 per cent of the cultivated area. The principal crops are potato, *tezpata,* sugarcane, oilseeds, cotton, jute, mesta and arecanut. Selected areas have been earmarked for growing high-yielding varieties of paddy, wheat and maize. In the Khasi and Jaintia Hills districts, fruits, and vegetables are also grown and special programmes have been undertaken to develop horticulture. The production of foodgrains is around 1,41,000 tonnes annually. The state is making good progress in horticulture.

Forests and forest-products are the chief resources of the state. Economic plantations of industrial and commercial use are being undertaken extensively.

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INDUSTRY

The cement factory at Cherrapunjee produces about 300 tonnes of clinker and 310 tonnes of cement daily. The capacity of this factory is being expanded to produce 930 tonnes of cement daily. Several mineral-based industries are coming up. A plywood factory and a beverages factory have already been set up.

Ninetyfive per cent of India's toal output of sillimanite is produced in the Khasi Hills district. The Garo Hills district has deposits of coal, limestone, fire clay and light coloured sandstone. The estimated reserve of coal in the state are about 120 crore tonnes and limestone 210 crore tonnes.

IRRIGATION AND POWER

There are at present four hydel projects with a total installed capacity of 132.15 mw. In addition to this, there is a micro hydel station of 1.5 mw capacity at Shillong. The state had electrified 960 villages up to the end of 1981-82.

IMPORTANT TOURIST CENTRES

Among important tourist centres are : Cherrapunjee, Nohsngithiang Falls near Mawsmai village, hot springs at Jakrem, fishing spots at Ranikor, Siju caves in Garo Hills and Umiam lake.

GOVERNMENT

Governor : Prakash Mehrotra

Council of Ministers

Chief Minister : Williamson A. Sangma

Cabinet Ministers : D. D. Lapang, Rowell Lyngdoh, Saleng Marak, Albinstone Sangma, Sandford Marak, Roytre Laloo, Prithington Sangma, Hinder Khonglam, Indro Pariat, Medister Warbah, Mestorath Kharchandi, Grosswel Mulliemngap, Kitdor Sylem and Oris Lyngdoh.

Ministers of State : Atulch Marak, Meckenson Sangma, Cecil Marak, Nihon Ksih and Dominic Robin Nongkynrih.

Legislative Assembly

Speaker : K. Macdlong

Deputy Speaker : Ira Marak

High Court

The Jurisdiction of Gauhati High Court extends over Meghalaya. For list of Judges, see under Assam.

Public Service Commission

Chairman : H. Syiemlieh

Members : Smt. F. Marak, O. Laloo and Smt. R. Bathew Kharbuli

Chief Secretary : J. C. Nampui

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. East Khasi Hills . . .	5,196	5,06,687	Shillong
2. West Khasi Hills . . .	5,247	1,60,660	Nongstoin
3. East Garo Hills . . .	2,603	1,35,864	Williamnagar
4. West Garo Hills . . .	5,564	3,69,139	Tura
5. Jaintia Hills . . .	3,819	1,55,993	Jowai

Note: The total area of the districts will not tally with the state area because the former represents land used and are derived from the figures supplied by the State Directorate of Land Records.

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NAGALAND

Area : 16,579 sq km
Capital : Kohima

Population : 7,74,930
Principal languages : Ao, Konyak, Angami, Sema and Lotha

AGRICULTURE

Agriculture is the main occupation of 90 per cent of the population of Nagaland. Rice is the only important foodgrain grown in the state. The total area operated for *jhum* cultivation is 6,209 hectares and rice is cultivated in 81,339 hectares terraced area with irrigation facilities.

Out of the total land area of 16,52,700 hectares, the forests occupy an area approximately 2,88,252 hectares. Protected forest 51,799 hectares, purchased forest 1,74,488 hectares and private forest 1,89,750 hectares.

INDUSTRY

There is a sugar mill with a crushing capacity of 1,250 tonnes per day at Dimapur. The Nagaland Forest Products Ltd. at Dijit has gone into production. A paper mill with a production capacity of 100 tonnes per day and a distillery unit at Dimapur have been set up. A factory for the production of decorative and commercial plywood is also coming up. Handloom and sericulture are the important cottage industries. There are 5 weaving-cum-production centres.

IRRIGATION

Minor irrigation works in the state are mostly meant to divert small hill streamlets to irrigate valleys used for rice cultivation. The number of electrified villages stands at 490 out of 960 villages.

GOVERNMENT

Governor : S. M. H. Burney

Council of Ministers

Chief Minister : S. C. Jamir

Cabinet Ministers : T. A. Ngullie, H. Sao Chang, K. L. Chishi, M. Kariba, I. Khehoto, P. Enyei Konyak, Kiyezhe, Tiameren, N. I. Jamir, Dr. Vizadel Sakhrie and T. Rothrong.

Ministers of State : T. N. Ngullie, Nokzenketba, Yokten Konyak, Henlum L. Singson, Marchiba, Kihoto Hollohon, Puse Zhotso, Anwar Hussain, Nocklem Konyak, Shikiho Sema and Banjak Phom.

Legislative Assembly

Speaker : C. Chongsen

Deputy Speaker : E. T. Ezung

Chief Secretary : I. Longkumer

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Kohima	4,041	2,51,416	Kohima
2. Mokokchung	1,615	1,04,257	Mokokchung
3. Wokha	1,628	53,271	Wokha
4. Zunheboto	1,255	60,645	Zunheboto
5. Phek	2,026	10,675	Phek
6. Mon	1,786	78,745	Mon
7. Tuensang	4,228	1,52,276	Tuensang

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ORISSA

Area : 1,55,707 sq km
Capital : Bhubaneswar
Population : 2,63,70,271
Principal language : Oriya

AGRICULTURE

Over 76 per cent of the people are dependent on agriculture. Out of the gross cropped area of 81.66 lakh hectares, 16.24 lakh hectares are irrigated. Rice, pulses, oilseeds, jute, *mesta,* sugarcane, coconut and turmeric are important crops.

Forests cover about 43.42 per cent of the area of the state. Main forest products are *sal,* teak, rosewood, lac, tusser, silk, medicinal plants and *kendu* leaves. Lac, tusser and medicinal plants like *nux vomica* and *rauwolfia serpentina* are available from certain forests. Seeds of *sal,* available in abundance, have recently become an economic product of the forests. *Kendu* leaf trade has been nationalised.

INDUSTRY

Orissa is a very important mineral bearing state in the country. Important minerals found in the state include iron ore, manganese ore, limestone, dolomite, chromite, non-coking coal, bauxite, graphite, china clay, nickel ore, vanadium ore, fire clay and mineral sands.

Since Independence, 49 large industries have been set up in the state in the public and private sectors. Most of them are mineral based. Among them are the Rourkela steel plant, a pig iron plant at Barbil and a ferro-chrome plant at Jajpur Road, two ferro-manganese plants, a ferro-silicon plant and an aluminium smelter plant. The other mineral based industries are two refractory plants and two cement plants. An oxygen plant, an alloy steel casting plant and two jute twine plants have been newly set up. Two solvent extraction plants have been set up at Bhadrak and Rairangpur.

There are three large paper mills at Rayagada, Choudwar and Brajarajnagar. The Hindustan Steel Ltd. has also a fertilizer plant at Rourkela. Chemical industries include a caustic soda plant and a salt manufacturing unit at Ganjam and an industrial explosives plant at Rourkela.

Other industries of importance are two large sugar plants, one at Rayagada and the other at Aska, the latter in the cooperative sector; a glass works at Baranga, a heavy machine tool plant at Kansbahal, a refrigerator manufacturing unit at Choudwar, a re-rolling mill at Hirakud and three textile mills at Choudwar, Jharsuguda and Bargarh, the last one in the co-operative sector, a phosphatic fertilizer plant at Rourkela, a *sal* seed extraction unit in Mayurbhanj district and a dichromatic plant in Cuttack district. Notable landmarks include the first textile processing unit of the state at Jagatpur, 9 spinning mills, the first film studio at Khandgiri and an industrial complex at Chandak.

IRRIGATION AND POWER

Irrigation facilities in the state have expanded considerably since 1947. The Hirakud Dam project is a multi-purpose river valley project with the objectives of power generation (270 mw), flood control navigation and irrigation. Balimela Hydro-electric Project, Machkund Hydro-electric Scheme and Talcher thermal stations are the other important power projects.

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The total installed capacity of power, both hydel and thermal, by the end of 1980 was 1,474 mw. This will be increased greatly by 1983-84 when the three projects which are under execution will be completed. These are Talcher thermal, Rengali multi-purpose project and Upper Kolab Hydro-electric project.

GOVERNMENT

Governor : Bishambhar Nath Pande

Council of Ministers

Chief Minister : J. B. Patnaik

Cabinet Ministers : Upendra Dixit, Basudev Mohapatra, Gangadhar Mahapatra, Dayanidhi Naik, Raghunath Patnaik and Rama Chandra Ulaka.

Ministers of State : Harihar Karan, Kuanria Majhi, Jugal Kishore Patnaik, Bhajaman Behera, Niranjan Patnaik, Basanta Kumar Biswal, Habibulla Khan, Kishore Chandra Patel and Krushna Chandra Patnaik.

Legislative Assembly

Speaker : Somnath Rath

Deputy Speaker : Himansu Sekhar Padhi

High Court

Chief Justice : Dambarudhar Pathak

Judges : P. K. Mohanty, N. K. Das, J. K. Mohanty, Brajnath Mishra, B. K. Behera and R. C. Patnaik.

Public Service Commission

Chairman : A. C. Padhi

Members : Debendra Naik, P. K. Pati, L. D. Mallik and C. P. Majhi.

Chief Secretary : S. M. Patnaik

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Balasore	6,394	22,53,090	Balasore
2. Bolangir	8,903	14,52,675	Bolangir
3. Cuttack	11,211	46,17,748	Cuttack
4. Dhenkanal	10,826	15,76,565	Dhenkanal
5. Ganjam	12,527	26,52,699	Chatrapur
6. Kalahandi	11,835	13,29,780	Bhawanipatna
7. Keonjhar	8,240	11,09,746	Keonjhar
8. Koraput	27,020	24,67,329	Koraput
9. Mayurbhanj	10,412	15,76,987	Baripada
10. Phulbani	11,070	7,12,772	Phulbani
11. Puri	10,159	29,11,720	Puri
12. Sambalpur	17,570	22,74,125	Sambalpur
13. Sundargarh	9,675	13,36,818	Sundargarh

PUNJAB

Area : 50,362 sq km
Capital : Chandigarh
Population : 1,67,88,915
Principal language : Punjabi

AGRICULTURE

About 83.5 per cent of the total geographical area of Punjab is under cultivation. Seventy per cent of the population is engaged in agricultural pursuits. The state is surplus in foodgrains, especially wheat and rice. Other main foodgrains are maize, *bajra, jowar,* gram, barley and pulses. Major cash crops are oilseeds, sugarcane,

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tobacco, cotton and potato. The production of foodgrains in 1981-82 was 133.26 lakh tonnes.

An area of 2,59,119 hectares of land was under forest during 1982.

INDUSTRY

Punjab is the home of small-scale industries. Sericulture, footwear, machine tools, bicycle parts, sewing machines and parts, plastic goods, pipes, nuts and bolts, wood and machine screws are some of the important small scale industries. As on 31 March 1982, there were 65,997 important small manufacturing units in the state. Punjab also produces 70 per cent of the country's woollen hosiery.

Some of the major industries established through the Punjab Industrial Development Corporation are tractors, dry cell batteries, polyster fibres, nylon, automobile tyres and tubes, synthetic detergents, scooters, breweries, fertilizers, steel billets, TV sets, electronic components and precision instruments. The Nangal Fertilizer factory is a major Union Government undertaking in the state. The naphtha-based fertilizer factory at Bhatinda set up with the assistance of Union Government has started production.

In addition, five new projects have come up recently. These are Biomedical Equipments Ltd., Records Ltd., Digital Industrial System Ltd., Electro Optical System Ltd. and Consumer Electronic Items Ltd. Some of the bio-medical equipments are being made for the first time in the country.

IRRIGATION AND POWER

Important irrigation works implemented since 1947, are the Bhakra Nangal Dam, Bhakra Canals, Harike Barrage with a new lined canal called Sirhind Feeder and remodelling of Madhopur Headworks into a barrage. The Madhopur-Beas link was constructed to transfer the surplus waters of Ravi to Beas. A similar project—the Sutlej-Beas link project, has been completed. The fourth unit of Guru Nanak Thermal Power Plant at Bhatinda was commissioned in January 1979. The Pong Dam on Beas is an important hydro-electric project. The fourth unit of the Dam was commissioned in March 1979. A new thermal plant at Ropar has also been taken up. The third and fourth units at Dehar Power Plant were commissioned in 1979.

The total installed capacity in different fields of power development by 1980-81 was 1,536 mw. The state has already achieved cent per cent electrification. For irrigation purposes 6.10 lakh tube wells were energised till March 1982.

GOVERNMENT

Governor : B. D. Pande[1]

Members of Governor-in-Council : G. Jagatpati, P. G. Gavai, Harbans Singh and Dr. S. S. Sidhu.

Legislative Assembly

Speaker : Brij Bhushan Mehra

Deputy Speaker : Gulzar Singh

1. Appointed on 7 October 1983 following the declaration of President's Rule in Punjab.

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High Court

Punjab and Haryana have a common High Court. For list of judges see under Haryana.

Public Service Commission

Chairman : Smt. Santosh Chaudhary

Members : Harbhajan Singh Deol, Gopal Krishan Saini, Major General M. S. Brar, Dalip Singh Sandhu and Dasonda Singh.

Chief Secretary : K. D. Vasudeva

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Amritsar	5,086	21,67,071	Amritsar
2. Bhatinda	5,551	12,94 957	Bhatinda
3. Faridkot	5,740	14,29,182	Faridkot
4. Ferozepur	5,874	13,00,778	Ferozepur
5. Gurdaspur	3,562	15,02,366	Gurdaspur
6. Hoshiarpur	3,879	12,30,848	Hoshiarpur
7. Jalandhar	3,401	17,23,699	Jalandhar
8. Kapurthala	1,633	5,37,156	Kapurthala
9. Ludhiana	3,856	18,04,420	Ludhiana
10. Patiala	4,584	15,61,547	Patiala
11. Rupnagar	2,084	7,12,411	Rupnagar
12. Sangrur	5,107	14,05,320	Sangrur

RAJASTHAN

Area : 3,42,239 sq km *Population* : 3,42,61;862
Capital : Jaipur *Principal languages* : Hindi and Rajasthani

AGRICULTURE

Total gross irrigated area in Rajasthan is about 37.49 lakh hectares while the sown area was about 152.68 lakh hectares in 1980-81. Agricultural production is mainly dependent on rainfall. The principal crops are *jowar, bajra,* maize, gram, wheat, oilseeds, cotton, sugarcane and tobacco. Total production of foodgrains in 1981-82 was 71.49 lakh tonnes.

Forests covered 30,553.71 sq km of the state's area during 1981-82.

INDUSTRY

Rajasthan accounts for the country's entire output of zinc concentrates, emeralds and garnets. Ninetyfour per cent of India's gypsum, 76 per cent of silver ore, 84 per cent of asbestos and 68 per cent of felspar and 12 per cent of mica are also mined. It has rich salt deposits at Sambhar and other places. Copper mines are situated at Khetri and Dariba.

Textile, rugs and woollen goods, sugar, cement, glass, sodium producing plant, oxygen and acetylene producing units, manufacture of pesticides, insecticides and vegetable dyes, zinc smelter, fertilizer, railway wagons, ball bearings, water and electric meters, sulphuric acid, television sets, synthetic fibres, mica insulating bricks, cadmium finished goods, polished and repolished stones, spirits and wines, etc. are some of the major industries. Other enterprises include the manufacture of caustic soda, calcium carbide, nylon and tyre cord and copper smelting. Among the important Union Government undertakings in the state is the Precision Instrument Factory at Kota. In 1981-82 there were 7,001 registered factories.

Important handicrafts are marble work, woollen carpets, jewellery, embroidery, articles of leather, pottery and brass embossing.

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IRRIGATION AND POWER

Major irrigation schemes implemented since 1947 are the Kota Barrage and Rana Pratap Sagar, both inter-state projects in collaboration with Madhya Pradesh. The Rajasthan Canal will be the longest in the world when completed. Steps are being taken to complete the project by the end of Sixth Plan and the ultimate irrigation potential of 12.68 lakh hectares will be created. Besides a number of small and medium irrigation schemes, the state is benefited from Bhakra Nangal Project, Gandhi Sagar Dam and Beas Project. Mahi Project is also in progress.

Rajasthan had in November 1982 an installed power capacity of 1,240.34 mw comprising of 660.67 mw from its share in hydro power station and 579.67 mw from thermal power station. The entire hydro capacity in the state is from share in the inter-state projects. Atomic power project has started production. Rajasthan had only 43 electrified villages and towns in 1951, the number increased to 17,700 upto 1982-83. For irrigation, 2,43,538 tubewells have been energised upto 1982-83.

GOVERNMENT

Governor : O. P. Mehra

Chief Minister : Shiv Charan Mathur

Cabinet Ministers : Paras Ram Maderna, Chandan Mal Baid, Brij Sundar Sharma, Smt. Kamla, Dulah Ram, Hira Lal Devpura, Ahmed Bux Sindhi and Khet Singh Rathore.

Ministers of State : Jai Kishan Sharma, Pradyumn Singh, Sheesh Ram Ola, Shri Ram Gotawala, Dinesh Rai Dangi, Ghasi Ram Yadav, Chet Ram Meena, Govind Singh Gujjar, Ram Kishan Verma, Devendra Singh and Bulaki Das Kalla.

Legislative Assembly

Speaker : Poonam Chand Bishnoi

High Court

Chief Justice : Pradyot Kumar Banerjee

Judges : D. P. Gupta, M. L. Shrimal, P. D. Kudal, Guman Mal Loda, Krishna Mal Lodha, Narendra Mohan Kashliwal, Milap Chand Jain, Suresh Chand Agarwal, Dr. K. S. Sidhu, M. B. Sharma, Km. Kanta Kumari Bhatnagar, S. N. Bhargava and G. K. Sharma.

Public Service Commission

Chairman : Hari Dutt Gupta

Members : D. D. Chowhan, S. Adiyappa and J. M. Khan

Chief Secretary : M. M. K. Wali

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Ajmer	8,479	14,40,366	Ajmer
2. Alwar	8,382	17,71,173	Alwar
3. Banswara	5,037	8,86,600	Banswara
4. Barmer	28,387	1,18,892	Barmer
5. Bharatpur	5,084	12,99,073	Bharatpur
6. Bhilwara	10,450	13,10,379	Bhilwara
7. Bikaner	27,231	8,48,749	Bikaner
8. Bundi	5,550	5,86,982	Bundi
9. Chittorgarh	10,858	12,32,494	Chittorgarh
10. Churu	16,829	11,79,466	Churu
11. Dholpur	3,009	5,85,059	Dholpur
12. Dungarpur	3,770	6,82,845	Dungarpur
13. Ganganagar	20,629	20,29,968	Ganganagar
14. Jaipur	14,000	34,20,574	Jaipur
15. Jaisalmer	38,401	2,43,082	Jaisalmer

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District	Area	Population	Headquarters
16. Jalore	10,640	9,03,073	Jalore
17. Jhalawar	6,216	7,84,998	Jhalawar
18. Jhunjhunu	5,929	12,11,583	Jhunjhunu
19. Jodhpur	22,860	16,67,741	Jodhpur
20. Kota	12,437	15,59,784	Kota
21. Nagaur	17,718	16,28,669	Nagaur
22. Pali	12,391	12,74,504	Pali
23. Sawai Madhopur	10,593	15,35,870	Sawai Madhopur
24. Sikar	7,732	13,77,245	Sikar
25. Sirohi	5,135	5,42,049	Sirohi
26. Tonk	7,200	7,83,635	Tonk
27. Udaipur	17,267	23,56,959	Udaipur

SIKKIM

Area : 7,096 sq km
Capital : Gangtok
Population : 3,16,395
Principal languages : Lepcha, Bhutia, Hindi, Nepali and Limbu

AGRICULTURE

The state's economy is basically agrarian. Rice, maize, millet, wheat, barley and potato are the main crops. Cardamom, orange and apple are the major cash crops.

Nine regional centres carrying out both experimental research work and extension work are functioning at Gyalshing, Hillay, Burmiok, Nazitam, Pakyong, Mangan, Lachung, Majitar and Namchi. The research efforts of the state government are supplemented by the centre of the Indian Council of Agricultural Research stationed at Tadong in Gangtok. The Government has launched a scheme to terrace fields at government expense.

There is a 20-hectare research centre of Cardamom Board at Pangthang and progeny orchards at Namli and Majitar and apple orchards at Lachen, Ribdi, Varey, Okharay, Uttaray and Phadamchen. Coffee has also been introduced on experimental basis.

About one-third of the area is covered by forests. *Sal* abounds in the south while conifers are found in plenty in the north. Broad leaf varieties grow abundantly in other parts. There is a farm at Pangthang for breeding high yielding strains of cattle.

INDUSTRY

A multi-purpose state-level Industrial Development Investment Corporation has been established with the object of accelerating industrial development in the state by providing financial assistance to small and medium scale industries. The Industrial Training Institute at Rangpo imparts training to local youth.

The Sikkim Mining Corporation, set up in 1960, produces copper, lead and zinc. The Geological Survey of India and the Corporation have jointly located high grade deposits of gold, silver, copper and zinc in combined form. The deposits are estimated to be 20 lakh tonnes. The copper mine of Dikchu is under exploration.

The Institute of Cottage Industries, set up in 1957 at Gangtok, and its branches at Chungthang, Lachung and Gyalshing, encourages local handicrafts. Wood carving and carpet weaving are traditional industries. Important industrial ventures include the fruit preservation factory at Singtam, the distillery near Rangpo and a tannery at

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Majitar, Sikkim Jewels and Sikkim Electronics at Gangtok and a wood working centre at Bordang. A watch assembly unit in Gangtok is another industrial venture started in collaboration with HMT.

A number of small scale industries have been set up producing briquettes, matches, washing soap, aluminium products, etc.

IRRIGATION AND POWER

Sikkim has tremendous water-power potential. There are four mini-hydel power stations at Mangan, Rimbi, Rohtak and Sang Khola. The prestigeous Lower Lagyap hydel project, a centrally sponsored scheme, is already in operation. Irrigation is high on the priority list.

GOVERNMENT

Sikkim became a full-fledged state of the Indian Union with effect from 26 April 1975. On 1 March 1975, it became an associate state. The Legislative Assembly adop'ed a resolution on 10 April 1975 abolishing the institution of Chogyal and seeking for the territory full statehood in Indian Union. The resolution was endorsed by the people by an overwhelming majority in a special poll held on 1 April 1975.

The Constitution (Thirty Sixth Amendment) Act, 1975, was passed by Parliament on 26 April 1975 for giving effect to the wishes of the people of Sikkim to become fully integrated with the Indian Union as a constituent state.

Governor : Homi J. H. Talyarkhan

Council of Ministers

Chief Minister : Nar Bahadur Bhandari

Ministers : Athup Lepcha, Tulsi Ram Sharma, Lachen Rimpoche, Samten Tsering, Chamla Tsering, Indra Bahadur Limboo, Bhim Bahadur Gurang and Ram Lepcha.

Legislative Assembly

Speaker : Sonam Tsering

Deputy Speaker : L. B. Basnett

High Court

Chief Justice : A. M. Bhattacharjee (Acting)

Chief Secretary : M. P. Pradhan

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. East	1,000	1,38,105	Gangtok
2. North	4,200	26,390	Mangan
3. South	700	75,691	Namchi
4. West	1,200	74,813	Gyalshing

TAMIL NADU

Area : 1,30,058 sq km
Population : 4,84,08,077
Capital : Madras
Principal language : Tamil

AGRICULTURE

The total cultivated area was about 73.89 lakh hectares in 1980-81 of which irrigated area was about 33.03 lakh hectares. The main food crops are rice, maize, *jowar, bajra, ragi* and pulses. Important commercial crops are sugarcane, oilseeds, cotton, chillies, banana, coffee, tea and rubber.

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Forests cover an area of 21,79,101 hectares. Major forest products are timber, sandalwood, pulpwood and fuel wood, while the minor forest products are bamboo, poles, eucalyptus, rubber, tea (green leaves), cashew, honey, ivory and wattle bark, etc.

INDUSTRY

Major industries are cotton textiles, chemical fertilizers, paper and paper products, printing and allied industries such as diesel engines, automobiles and automobile ancillaries, bicycles, cement, sugar, iron and steel and railway wagons and coaches.

A number of public sector undertakings are located in the state. Important among them are the Neyveli Lignite Complex, the Integral Coach Factory, the High Pressure Boiler Plant, the Hindustan Photo Films Factory, the Surgical Instruments Factory, the Hindustan Teleprinters, the Madras Refineries, the Madras Fertilizers and the Heavy Vehicles Factory.

Limestone, magnesite, mica, quartz, felspar, salt, bauxite, lignite and gypsum are some of the minerals found in the state.

The state is an important exporter of tanned skin and hides and leather goods, cotton piecegoods and yarn, tea, coffee, spices, engineering goods, tobacco and black granites.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence are the Lower Bhavani, the Amaravathi, the Vaigai, the Parambikulam-Aliyar, the Krishnagiri, the Sattanur, the Pullambadi-Kattalai High Level Canal, the Gomukhi Nadhi, Chittoor Pattannamkal and the Ponnaniar schemes.

There are 18 hydro-electric stations and 3 thermal stations in the state. The total generation of power, hydel and thermal was 7,832 mw during 1981-82. Construction of an atomic power station at Kalpakkam in Chingleput district is in progress. In December 1982, Tamil Nadu had 15,627 villages and 47,485 hamlets electrified and 9.60,000 pumpsets energised. No *harijan* colony in Tamil Nadu is left without electrification.

IMPORTANT TOURIST CENTRES

Important tourist centres are : Udagamandalam (Ooty), Kodaikanal, Mamallapuram, Thirukazhungundram, Kancheepuram, Madurai, Rameshwaram, Kanyakumari and Thanjavur.

GOVERNMENT

Governor : Sunder Lal Khurana

Council of Ministers

Chief Minister : M. G. Ramachandran

Cabinet Ministers : V. R. Nedunchezhian, S. Ramachandran, K. A. Krishnaswamy, S. D. Somasundaram, R. M. Veerappan, C. Aranganayagam, K. Kalimuthu, C. Ponnaiyan, P. Kulandaivelu, S. Raghavanandam, Dr. H. R. Hande, S. Muthuswamy, S. Thirunavukkarasu, S. N. Rajendran, M. Vijayasarathi, Smt. Gomathi Srinivasan, M. R. Kovendan, S. R. Radha, Km. P. Vijayalakshmi, R. Soundararajan, Y. S. M. Yusuff, K. Kalaimani and R. Arunachalam.

Legislative Assembly

Speaker : K. Rajaram

Deputy Speaker : P. H. Pandian

Legislative Council

Chairman : Dr. M. P. Sivagnanam

Deputy Chairman : Pulavar Pulamai Pithan

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High Court

Chief Justice : P. R. Gokulakrishnan (Acting)

Judges : G. Ramanujam, V. Ramaswami, S. Natarajan, S. Ratnavel Pandian, S. Mohan, S. Padmanabhan, M. A. Sathar Sayeed, T. Sathyadev, S. Nainar Sundaram, G. Maheswaran, S. Swamikannu, V. Ratnam, K. Sengottuvelan, K. Shanmugham, M. Fakkir Mohammed, T. N. Singaravelu, Syed Khadar and P. Venugopal.

Public Service Commission

Chairman : Major General S. P. Mahadevan

Members : M. Thirumalaiswamy, M. Periyaswamy, Dr. Smt. Ambika Shanmugam, G. Thirumal, S. Thirumalaiappan and M. Abdul Samad.

Chief Secretary : K. Chockalingam

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Chingleput	7,920	36,11,871	Kancheepuram
2. Coimbatore	75,038	30,51,135	Coimbatore
3. Dharamapuri	9,643	19,93,290	Dharamapuri
4. Kanyakumari	1,684	14,19,110	Nagercoil
5. Madras	128	32,66,034	Madras
6. Madurai	12,629	45,30,028	Madurai
7. Nilgiris	2,549	6,28,231	Udagamandalam
8. North Arcot	12,265	44,02,087	Vellore
9. Ramanathapuram	12,578	33,30,339	Madurai
10. Salem	8,643	34,29,822	Salem
11. South Arcot	10,898	41,99,892	Cuddalore
12. Periyar	8,169	20,57,496	Erode
13. Pudukottai	4,620	11,55,684	Pudukottai
14. Tiruchirapalli	11,114	36,06,033	Tiruchirapalli
15. Thanjavur	8,262	40,57,230	Thanjavur
16. Tirunelveli	11,433	35,59,174	Tirunelveli

TRIPURA

Area : 10,486 sq km
Capital : Agartala

Population : 20,53,058
Principal languages : Bengali, Tripuri, Kakborak and Manipuri

AGRICULTURE

About 24.3 per cent of the total area is available for agricultural use. The principal crops are paddy, wheat, jute, sugarcane, *mesta*, potato, oilseeds, pulses and cotton. About 5,274 and 5,522 hectares have been brought under different soil conservation treatment during 1981-82 and 1982-83 respectively. Consequent upon acceptance of the modern technology by the cultivators, over all production of cereals was increased by about 19.9 per cent in 1982-83 as compared to that of 1981-82. During 1982-83 an area of 1,77,000 hectares was sown more than once as against 1,69,000 hectares in previous year.

About 54.5 per cent of the total area is under forest. Total area of reserve forest and proposed reserved forest is 3,862 sq km which is 37 per cent of the land area. Plantations have so far been raised over 82,669 hectares. Rubber plantation has also been taken up extensively in the state. Upto 1982, an area of 3,337.02 hectares had been planted.

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INDUSTRY

Tea is the major industry in Tripura. There are 49 registered tea gardens covering an area of 5,527 hectares. The industry has been employing about 10,000 workers. Three workers cooperative societies have taken up new plantation in different places of the state. Two more new cooperative societies have been formed for tea plantation.

The major small scale industries which have been functioning in the state are aluminium, utensils, saw mill, steel furniture, carpentry, dry battery, pharmaceuticals, rice mill, washing soap, tyre retreating, flour mill, aluminium conductor, leather goods, polythene pipe, plywood, fruit canning, candle oil mills, etc. Brick kilns, pharmaceutical units and fruit processing units and wood treatment and seasoning are functioning under public sector.

Handloom is the single largest industry in the state and weaving is essentially a tribal household industry. In 1982-83 handloom products worth Rs 10 crore were produced. Nine pilot centres are running in different parts of the state for imparting training in improved techniques and producting quality handloom goods. Apex weavers society has been established and it is catering to the needs of about 50 primary weavers cooperative societies.

The area under cultivation of mulberry is about 400 hectares and production of cocoon is estimated to be 6,000 kg per year. A design centre on handicraft is functioning at Agartala. About 5,000 craftsmen are now engaged in manufacturing handicrafts, mainly of cane and bamboo and producing products worth one crore rupees per year.

IRRIGATION AND POWER

The irrigation potential by permanent schemes has been increased from 3,831 hectares as on 1 April 1978 to 10,911 hectares on 31 March 1982. 10,000 hectares for minor irrigation and 3,500 hectares for medium irrigation have been fixed as target for the Sixth Plan.

In medium irrigation sector, 3 projects on Gumti, Khowai and Manu rivers with an estimated cost of Rs 10 crore, Rs 7.10 crore and Rs 8.19 crore respectively have been approved.

1,524 villages have been electrified and 875 pump sets have been energised upto April 1983. The installed capacity of the state is 10 mw against a demand of 17 mw. The state is purchasing power through 132 kv line from Assam. The present 10 mw installed capacity of the state is expected to be raised to 20 mw by 1980-85 along with grid sub-station to reach eight.

IMPORTANT TOURIST CENTRES

Important tourist centres are : Nirmahal, Sipahijala, Matabāri, Dumboor lake, Kamalasagar, Jumpai Hill and Unakoti.

GOVERNMENT

Governor : S. M. H. Burney

Council of Ministers

Chief Minister : Nripen Chakraborty

Deputy Chief Minister : Dasarath Deb

Ministers : Biren Dutta, Baidyanath Majumder, Anil Sarkar, Sudhānyā Deb Barma, Dinesh Deb Barma, Abhiram Deb Barma, Badal Chowdhury, Khagen Das, Araber Rahaman, Jogesh Chakraborty, Ramkumar Nath.

Legislative Assembly

Speaker : Amarendra Sharma

Deputy Speaker : Bimal Singha

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High Court

The jurisdiction of the Gauhati High Court extends over Tripura. A bench of Gauhati High Court is functioning at Agartala.

Chief Secretary : S. R. Sankaran

Tripura Autonomous District Council

As per 7th schedule of the Constitution, the Tripura Tribal Areas Autonomous District Council Bill 1979 was passed by the Assembly on 23 March 1979.

The Tripura Tribal Areas District Council was constituted on the 18 January 1982. Out of 28 seats, 21 seats are reserved for scheduled tribes.

The Executive functions of the District Council vest in Executive Committee headed by the Chairman. It consists of the Chairman, Vice-Chairman and five Executive Members.

Chairman : Narayan Rupini

Vice-Chairman : Aghore Deb Barma

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. North Tripura . . .	3,880	5,41,248	Kailashahar
2. South Tripura	3,614	5,35,588	Udaipur
3. West Tripura	2,997	9,76,252	Agartala

UTTAR PRADESH

Area : 2,94,411 sq km
Capital : Lucknow
Population : 11,08,62,013
Principal language : Hindi

AGRICULTURE

The Uttar Pradesh Government has opened new vistas for agriculturists after achieving noteworthy success in the green revolution. The programme 'from lab to field' has been put into action to give a practical shape to agriculture policy in the state. The state produced 24 lakh tonnes of additional wheat during *rabi* season last year.

During *kharif* in 1982-83, the total foodgrain production was 78.02 lakh tonnes which included 55.26 lakh tonnes of rice. The production of the *jowar, bajra* and maize was of the order of 2.94 lakh tonnes, 7.42 lakh tonnes and 8.50 lakh tonnes, respectively. During 1983-84, the target of food production has been set at 274 lakh tonnes.

INDUSTRY

Uttar Pradesh is one of the principal sugar producing states. While the handloom industry is the largest cottage industry, cotton and woollen textiles, leather and footwear, distilleries and breweries, paper and chemicals, agricultural implements and glass products are some of the other flourishing industries.

A number of big public sector undertakings have been set up in the state. These are : the Bharat Heavy Electricals, Hardwar; the Indian Drug and Pharmaceuticals, Rishikesh; the Diesel Locomotive Factory, Varanasi; Fertilizer Factory at Gorakhpur and Allahabad; Singrauli Coal Fields, Singrauli; Modern Bakery, Kanpur; Bharat Pumps and Compressor, Naini; Indian Telephone Industries, Naini and Rae Bareli; the Triveni Structurals, Naini; the Deep Freeze Meat Plant, Tundla; the Hindustan Aeronautics, Lucknow; Transformer

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Factory, Jhansi; Uptron Capacitor Ltd., Lucknow; Uptron Digital System Ltd., Lucknow and two cement factories at Churk and Dalla. A new cement factory has come up at Kajrahat in Mirzapur district. There are also the Bharat Electronics Ltd., Ghaziabad; Scooters India Ltd., Lucknow and Tannery and Footwear Corporation of India Ltd., Kanpur. The Artificial Limbs Manufacturing Corporation of India Ltd., Kanpur; Oil Refinery, Mathura; Foundry Forge, Hardwar are among the Central projects being set up in Uttar Pradtsh. Eight spinning mills are running under State Textile Corporation and five new spinning mills will be set up during the Sixth Plan.

The traditional handicrafts are silk fabrics, metal ware, wood work, ceramics, stone work, dolls, artistic leather articles, papier mache, perfumery, bamboo products and musical instruments. Special attention has been given to khadi and village industries programme in the state.

The minerals found in the state are limestone, dolomite, magnesite, coal, copper, gypsum, glass-sand, marble, phosphorite and sand-diaspore.

IMPORTANT TOURIST CENTRES

Important tourist centres are : Agra, Lucknow, Varanasi, Allahabad, etc. Hill resorts are : Mussoorie, Nainital, Chakrata, Lansdowne, Almora, Ranikhet, Valley of Flowers (Garhwal). Religious centres like Kedarnath, Badrinath, Hardwar, Mathura, Ayodhya, Allahabad, Varanasi, Sarnath, Chitrakoot, Naimisharanya, etc. Many new places such as Shukratal, Vindhyam Obra (Mirzapur), Gorakhpur, Nawabganj (Unnao) are fast developing as tourist spots.

IRRIGATION AND POWER

The state has some of the oldest canal systems in the country among which are the eastern Yamuna canal, the upper and lower Ganga canal, Agra canal, Betwa canal, Sarda canal, Dhassan canal and Ken canal. Important irrigation projects implemented since 1947 are Matatila dam, Ramganga, Western Gandak canal, Sarda Sahayak, Rihand dam, Obra Hydel and thermal power stations, besides a number of small and medium irrigation projects. Yamuna and Tehri Hydel projects are in progress.

Among the major irrigation projects under construction are Tehri dam, Lakhwar Vyasi dam, Eastern Ganga Canal, Central Ganga Canal, Narainpur Pump Canal and Deehati Pump Canal.

Uttar Pradesh increased its installed capacity of power from 376 mw in 1960-61 to 3,694 mw in 1982-83. As many as 53,367 villages and 22,692 *bastis* were electrified; 4,38,866 private tubewells and 21,687 state tubewells were energised.

GOVERNMENT

Governor : C. P. N. Singh.

Council of Ministers

Chief Minister : Shripati Misra

Cabinet Ministers : Brahm Dutt, Bir Bahadur Singh, Ram Singh Khanna, Lokpati Tripathi, Balram Singh Yadav, Ammar Rizvi, Vidya Bhushan, Vasudeo Singh, Baij Nath Kureel, Baldeo Singh Arya, Yashpal Singh, Abdul Rahman Khan Nashtar and Swaroop Kumari Bakshi.

Ministers of State : Chandra Mohan Singh Negi, Hari Singh Balmiki, Sanjay Singh, Gulab Sehra, Mohammad Amin Ansari, Shivnath Singh

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Kushwaha, Ram Ratan Singh, Ranjit Singh, Judeo, Ram Naresh Shukla, Gopal Ram Das, Bachcha Pathak and Sunil Shastri.

Legislative Council

Chairman : Virendra Bahadur Singh Chandel

Deputy Chairman : Shiv Prasad Gupta

Legislative Assembly

Speaker : Dharam Singh

High Court

Chief Justice : Satish Chandra

Judges : Mahesh Narain Shukla, H. N. Seth, K. N. Singh, Gopi Nath, N. D. Ojha, K. N. Seth, P. N. Bakshi, M. P. Mehrotra, Amitav Banerji, B. N. Katju, K. C. Agrawal, B. N. Sapru, R. M. Sahai, P. N. Harkauli, D. N. Agarwal, P. S. Gupta, K. P. Singh, S. D. Agarwal, V. N. Mishra, V. K. Mehrotra, R. S. Singh, A. N. Verma, N. N. Mittal, V. K. Khanna, R. B. Lal, K. N. Mishra, M. Wahajuddin, B. C. Jauhari, N. N. Sharma, A. S. Srivastava, O. P. Saxena, R. A. Mishra, B. D. Agrawal, S. K. Dhaon, R. K. Shukla, T. S. Mishra, D. N. Jha, K. S. Varma, U. C. Srivastava, K. N. Goyal, S. C. Mathur, K. C. Mishra, S. Zahear Hasan, R. C. Dev Sharma, S. Saghir Ahmad, Visheshwar Nath Khare, Inderpal Singh and Kamleshwar Nath.

Public Service Commission

Chairman : Dilip Kumar Bhattacharya

Members : Saiyad Menhdi Hasan Rizvi, Jagdish Rajan, Hari Murti Singh, Jagat Narain Pradhan and Satish Chandra Dixit.

Chief Secretary : Soorat Das Srivastava

Area, Population and Headquarters of Districts

District	Area (sq km)	Population	Headquarters
1. Agra	4,816	28,52,474	Agra
2. Aligarh	5,024	25,65,450	Aligarh
3. Allahabad	7,255	37,80,665	Allahabad
4. Almora	7,023	7,72,994	Almora
5. Azamgarh	5,744	35,32,876	Azamgarh
6. Bahraich	6,871	22,21,154	Bahraich
7. Ballia	3,183	19,26,267	Ballia
8. Banda	7,645	15,36,349	Banda
9. Barabanki	4,422	20,12,576	Barabanki
10. Bareilly	4,125	22,64,770	Bareilly
11. Basti	7,309	35,76,789	Basti
12. Bijnor	4,825	19,25,637	Bijnor
13. Budaun	5,158	19,64,094	Budaun
14. Bulandshahr	4,895	23,49,530	Bulandshahr
15. Chamoli	9,125	3,64,287	Chamoli
16. Dehra Dun	3,088	7,57,259	Dehra Dun
17. Deoria	5,400	34,87,350	Deoria
18. Etah	4,449	18,37,375	Etah
19. Etawah	4,327	17,48,737	Etawah
20. Faizabad	4,427	23,69,626	Faizabad
21. Farrukhabad	4,349	20,02,513	Fatehgarh
22. Fatehpur	4,168	15,72,770	Fatehpur
23. Garhwal	5,440	6,24,259	Pauri
24. Ghazipur	3,381	19,41,516	Ghazipur
25. Gonda	7,331	28,38,305	Gonda
26. Gorakhpur	6,316	37,95,735	Gorakhpur
27. Ghaziabad	—	18,66,778	Ghaziabad
28. Hamirpur	7,192	11,94,114	Hamirpur
29. Hardoi	6,012	22,93,994	Hardoi
30. Jalaun	4,549	9,87,423	Orai

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District	Area (sq km)	Population	Headquarters
31. Jaunpur	4,040	25,27,012	Jaunpur
32. Jhansi	5,027	11,33,002	Jhansi
33. Kanpur (Urban)	6,121	17,82,665	Kanpur
34. Kanpur (Rural)	—	20,07,884	Kanpur
35. Kheri	7,691	19,62,826	Kheri
36. Lalitpur	5,024	5,87,290	Lalitpur
37. Lucknow	2,528	20,17,172	Lucknow
38. Mainpuri	4,254	17,24,057	Mainpuri
39. Mathura	3,797	15,43,568	Mathura
40. Meerut	5,944	27,66,496	Meerut
41. Mirzapur	11,301	20,33,834	Mirzapur
42. Moradabad	5,946	31,51,044	Moradabad
43. Muzaffarnagar	4,245	22,88,410	Muzaffarnagar
44. Nainital	6,792	11,33,111	Nainital
45. Pilibhit	3,504	10,06,326	Pilibhit
46. Pithoragarh	7,217	4,79,600	Pithoragarh
47. Pratapgarh	3,730	18,07,252	Pratapgarh
48. Rae Bareli	4,603	18,88,181	Rae Bareli
49. Rampur	2,372	11,77,022	Rampur
50. Saharanpur	5,526	26,73,653	Saharanpur
51. Shahjahanpur	4,581	16,48,669	Shahjahanpur
52. Sitapur	5,738	23,38,701	Sitapur
53. Sultanpur	4,424	20,37,703	Sultanpur
54. Tehri-Garhwal	4,421	4,93,245	Narendra Nagar
55. Unnao	4,586	18,26,463	Unnao
56. Uttarkashi	8,016	1,90,571	Uttarkashi
57. Varanasi	5,091	36,96,768	Varanasi

Note : Area figure for Ghaziabad is included in the area figure for Meerut and Kanpur (Rural) area is included in the area figure for Kanpur (Urban).

WEST BENGAL

Area : 88,752 sq km
Capital : Calcutta
Population : 5,45,80,647
Principal language : Bengali

AGRICULTURE

Agriculture contributes nearly 50 per cent of the state income and provides 60 per cent of its employment. Gross irrigated area is nearly 32 per cent of the total cultivated area. The state occupies a leading position among the rice producing states of the country. The area under paddy is nearly 70 per cent of the total cropped area. The state accounts for 60 per cent of the country's jute and more than 23 per cent of the tea production. The state earns considerable foreign exchange through export of jute and tea. Other important crops are pulses, oilseeds, barley, maize, betel leaf, tobacco and sugarcane. In Darjiling district temperate fruits are being grown.

Forests cover 13.4 per cent area of the state. Major forest products are timber, bamboo, firewood, charcoal and honey.

INDUSTRY

West Bengal is one of the major industrial states in the country with 6,548 registered working factories (excluding Defence factories) upto 1981. The number of registered small scale industrial units upto March 1982 was estimated to be 1,58,680.

In addition to one Alloy Steel Plant at Durgapur, there are two steel plants, one at Durgapur and the other at Burnpur. The other major industries are engineering, automobiles, chemicals, pharmaceuti-

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cals, aluminium, ceramics, jute, cotton textiles, tea, paper, glass, leather, footwear, bone-meal, bicycle, dairy and timber processing. A number of Central Government public sector undertakings including locomotive, cable, fertilizer, shipbuilding and ordnance are located in the state. The state government too has set up some public undertakings like sugar, chemical, electronics, leather, pharmaceuticals and photochemicals, textile, electromedical and allied industry. New industrial estates are also being developed at Asansol, Durgapur, Haldia, Kalyani, Kharagpur, Santaldih, Siliguri and Farakka.

Coal and china clay are two important minerals found in large quantity in West Bengal. Other minerals are dolomite, rock-phosphate, fire-clay, limestone, copper, iron, silica, quartz, felspar, manganese and sandstone.

IRRIGATION AND POWER

Important multipurpose irrigation and power schemes implemented since 1947 are the Damodar Valley Project, Mayurakshi Project and Kangsabati Project. The work of the Teesta Barrage Project is in progress.

Of the major power projects, the Bandel Thermal Power Station which had a capacity of 320 mw has now an additional 210 mw with the completion of fifth unit in March 1983. The Santaldih Power Station has a capacity of 480 mw, while the derated capacity of the Durgapur Project stands at 20 mw. The Kolaghat Power Project is under construction. The Calcutta Electric Supply Corporation through its three power stations has an installed capacity of 328 mw. A new power project at Titagarh has since March 1983 started generating commercially 60 mw. The total installed capacity of the plants under the West Bengal State Electricity Board is 1,900 mw. In addition, the Damodar Valley Corporation from its generating stations supplies power to West Bengal. In West Bengal installed generation capacity had gone up from 546 mw in 1951 to 2,280 mw in 1982.

About 6,197 *mouzas* had been electrified from April 1977 to January 1983. More than 25,000 deep and shallow tubewells have been energised upto October 1982.

IMPORTANT TOURIST CENTRES

Important tourist centres are : Calcutta, Digha (Midnapore), Bakkhali sea resort, Sundarban (24-Parganas), Bandel, Tarakeshwar, Kamarpukur and Hooghly (Hooghly), Santiniketan and Bakreswar (Birbhum), Durgapur (Burdwan), Vishnupur (Bankura), Murshidabad, Gour and Pandua (Malda), Darjiling, Mirik, Kalimpong and Kurseong (Darjiling), Jaldapara and Dooars (Jalpaiguri).

GOVERNMENT

Governor : A. P. Sharma[1]

Council of Ministers

Chief Minister : Jyoti Basu

Cabinet Ministers : Krishnapada Ghosh, Benoy Chowdhury, Jatin Chakraborty, Kanailal Bhattacharjee, Kanai Bhowmick, Debabrata Banerjee, Radhikaranjan Banerjee, Nani Bhattacharyya, Kanti Biswas, Nirmal Bose, Sambhu Charan Ghosh, Kamal Guha, Sambhunath Nandi Amritendu Mukherjee, Bhabani Mukherjee, Rabin Mukherjee, Parimal Mitra, Provas Chandra Roy, Prasanta Sur, Syed Mansur Habibullah and Ashok Mitra.

Ministers of State : Md. Abdul Bari, Smt. Chhaya Bera, Subhas Chakraborty, Smt. Nirupama Chatterjee, Sibendranarayan Chowdhury,

1. Took charge on 10 October 1983.

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Shanti Ranjan Ghatak, Ramnarayan Goswami, Tamang Dawa Lama, Sunil Kumar Majumdar, Abdul Razzak Mollah, Dr Ambarish Mukherjee, Bimalananda Mukherjee, Kiranmoy Nanda, Patit Paban Pathak, Provash Phodikar, Achintya Krishna Roy, Sailen Sarkar, Prabir Sengupta, Pralay Talukdar.

Legislative Assembly

Speaker : Hassim Abdul Halim

Deputy Speaker : Kalimuddin Shams

High Court

Acting Chief Justice : Tarun Kumar Basu

Judges : Anil Kumar Sen, Chittatosh Mukherjee, Murari Mohan Dutta, Purna Chandra Barooah, Anil Kumar Janah, Dipak Kumar Sen, Rabindra Nath Pyne, Bankim Chandra Ray, Manashnath Roy, Bimal Chandra Basak, Ramkrishna Sharma, Ganendra Narayan Roy, Chandan Kumar Banerjee, Manoj Kumr Mukherjee, Smt. Padma Khastgir, Smt. Manjula Bose, Bhabes Chandra Chakraborti, Smt. Jyotirmoyee Nag, Smt. Pratibha Banerjee, Nani Gopal Chaudhuri, Amitabha Dutta, Sachindra Nath Sanyal, Suhas Chandra Sen, A. M. Pal and J. N. Choudhury.

Public Service Commission

Chairman : A. K. Dasgupta

Members : Subalsakha Mandal, Dr. Gopinath Das, Sasanka Sekhar Chattopadhyay, Dr. (Smt.) Debi Chakravarti.

Chief Secretary : S. V. Krishnan

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Bankura	6,881	23,74,205	Bankura
2. Birbhum	4,550	20,94,756	Suri
3. Burdwan	7,028	48,08,886	Burdwan
4. Calcutta	104	32,91,655	Calcutta
5. KochBihar	3,386	17,71,562	Koch Bihar
6. Darjiling	3,075	10,06,434	Darjiling
7. Hooghly	3,145	35,49,817	Chinsurah
8. Howrah	1,474	29,57,464	Howrah
9. Jalpaiguri	6,245	22,07,087	Jalpaiguri
10. Malda	3,713	20,35,009	English Bazar
11. Midnapore	13,724	67,23,860	Midnapore
12. Murshidabad	5,341	37,02,869	Berhampore
13. Nadia	3,926	29,77,013	Krishnanagar
14. Purulia	6,259	18,55,429	Purulia
15. 24-Parganas	13,796	107,26,751	Alipore
16. West Dinajpur	5,206	24,02,763	Balurghat

ANDAMAN AND NICOBAR ISLANDS

Area : 8,249 sq km
Capital : Port Blair
Population : 1,88,741
Principal languages : Bengali, Hindi, Nicobarese, Tamil and Malayalam

AGRICULTURE The principal crops are rice, coconut and arecanut. Other crops are sugarcane, pulses, fruits and vegetables. The climate of the Islands is suitable for the cultivation of spices, red oil palm and rubber. These are being tried out.

Forests cover 7,144 sq km of the total area. All types of forests are found in the Islands—giant evergreens, hilltop evergreens, moist

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deciduous, littoral and sub-mountain swamp forests. A large variety of timber is found in the Andaman group of Islands. The most valuable woods are *paduk* and *gurjan*. These are not found in Nicobar. Cattle dominate the livestock population, with pigs coming second and goats third. Poultry is also quite popular.

The waters around the Islands are rich in fish. Unlike the mainland there is no traditional fishing community in the Islands. The fishermen are being encouraged to settle down at vantage points in different islands to carry on organised fishing. The total fish catch in 1982 was 3,879 tonnes valued at Rs 175 lakh.

INDUSTRY

There are 227 medium and small scale industrial units besides a few large sized ones. The large scale units, all wood based are located at Haddo and Chatham (both in Port Blair), bamboo-flat in South Andaman and Bakultala and Long Island, both in Middle Andaman. The products comprise sawn timber, commercial plywood, match splints and veneers. The small scale and handicrafts units are engaged in shell crafts, furniture making, bakery products, rice milling, wheat grinding, oilseeds crushing, etc. Nine industrial training institutes impart training to local entrepreneurs, artisans and tribals in trade like cane and bamboo crafts, wood crafts, shell crafts and tailoring. Most of these centres are training-cum-production centres.

IRRIGATION AND POWER

The Islands territory has made much headway in rural electrification. Of the 390 villages, 183 have been electrified. There are 15 power houses in the Islands with an installed capacity of 8,878 kw. The Phoenix Bay Power House with the capacity of 4,442 kw (diesel generators) is the main source of power to Port Blair and nearby areas.

In the absence of any perennial river, large scale irrigation projects are not possible in the Islands. Minor irrigation schemes like tapping of rain water and utilising underground water resources are taken up.

COMMUNICATION

The Islands are accessible by two means—by air and by sea. There is a direct Boeing 737 service from Calcutta to Port Blair twice a week and from Madras to Port Blair once a week. Four ships are plying between Port Blair and Calcutta/Madras/Visakhapatnam with an interval of ten days in respect of first two ports and once in three months in respect of the last one. The Marine and Shipping Department keeps a good fleet of vessels to cater to the needs of inter-island communication.

IMPORTANT TOURIST CENTRES

Important tourist centres are : the Cellular Jail, National Memorial, Anthropological Museum, Chatham Saw Mill, Carbyn's Cove Beach, Chinque Island, Ross Island, Wandoor, Chidyatapu and Mount Harriet.

ADMINISTRATION

Port Blair, the only town in the territory which is Capital of the Islands also has a population of 49,634. The majority of the population are emigrants from the mainland. They use their mother tongues for communication among themselves while the link language is Hindi.

The tribal population of the territory is 22,361. The tribes are Andamanese, Onges, Jarwas and Sentinelese in the Andamans district and Nicobarese and Shompens in the Nicobars district.

GOVERNMENT *Lt. Governor* : Manohar Lal Kampani

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High Court — The Jurisdiction of Calcutta High Court extends over Andaman and Nicobar Islands.

Public Service Commission — Recruitment is made through the Union Public Service Commission and Staff Selection Commission.
Chief Secretary : Jagdish Sagar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Andamans	6,340	1,58,287	Port Blair
2. Nicobars	1,953	30,454	Car Nicobar

ARUNACHAL PRADESH

Area : 83,743 sq km
Capital : Itanagar
Population : 6,31,839
Principal languages : Nissi/Dafla, Adi Wancho, Monpa, Nocte, Bengali and English

AGRICULTURE — Barring a few towns, the whole of Arunachal Pradesh is rural. Nearly 94 per cent of her population lives in about 3,126 villages, which are grouped under 48 integrated rural development blocks. The villagers by and large follow a method of shifting cultivation of crops, called *jhum,* to make their living. The cultivators constitute 35.33 per cent of the total population.

About five per cent of the geographical area is covered by agriculture and horticulture. The forests cover about 62 per cent of the total area. The cultivated area (as in April 1982) is about 1,33,435 hectares, of which 1,01,329 hectares are under *jhum* cultivation, 24,207 hectares under wet-rice cultivation and 7,899 hectares under terraced rain-fed cropping.

Rice is the major food grain crop. Other important crops are maize, millets, wheat, barley, pulses, mustard, potato, sugarcane, ginger, chilli, cotton, etc. Pineapple, orange, lemon, *lichi,* papaya, banana, guava and temperate fruits, such as apple, plum, pear, peach, cherries, walnuts, almonds, etc., are grown. Fruit plantations are being introduced progressively in different climatic and altitudinal zones.

The Gramsevak Training Centre and the Farmer's Training Centre at Pasighat are two important institutions providing training to youths and farmers in the scientific methods of rural development and agriculture respectively.

Besides cottage industries—handloom and handicrafts, there are many small industries including, among others, saw, rice and oil mills, fruit preservation, soap and candle manufacturing units, steel fabrication, wood works, printing presses, etc. The important medium-scale industries producing veneers, tea-chests, plyboards, etc. are forest-based. Facilities for training in different crafts and technical education are provided through various craft centres and the Industrial Training Institute at Roing. Industrial estates have been established at Itanagar and Deomali.

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A great leap towards building up of an infrastructure conducive to the growth of major industries has been taken. A light roofing sheet factory set up at Pasighat with a production capacity of 50 corrugated sheets per day has been operating. A fruit processing plant in the West Siang district with a capacity of 5 metric tonnes of processed fruit per day is expected to go into production.

The estimated coal deposit of the territory is 85 lakh tonnes and crude oil reserve 15 lakh tonnes. Rich deposits of dolomite and limestone are also found.

IRRIGATION AND POWER

Arunachal Pradesh is a mountainous terrain, where shifting cultivation is widely practised in the rain-fed *jhum* fields on the hills. Strips of land under settled cultivation in the valleys and terraces and irrigated, usually by diversion and gravitational channels.

The territory is immensely rich in hydel power resources, which are being profitably harnessed. Power generation began with a meagre capacity of 10 kw in 1971. Since then twenty one micro-hydel schemes have been commissioned and their combined installed capacity has gone upto a total of 10,420 kw by March 1983. The Sixth Plan target for hydel power has been raised to an installed capacity of 18,000 kw. Power is also available from the diesel generating sets, which have a total installed capacity of 2,100 kw.

Considerable progress has been made towards achieving the ambitious target for rural electrification to cover 680 villages. By the end of the Fifth Plan, 287 villages were electrified. Electricity has been extended to about 552 villages till March 1983 to the benefit of about 50 per cent of the population.

IMPORTANT TOURIST CENTRES

Places of tourist interest are Bomdila, Tawang and its nearby famous Buddhist monastery, Itanagar with the ruins of historical Ita Fort, Malinithan and Bhismaknagar—the two important archaeological sites, and the Parasuram Kund, a place of pilgrimage.

GOVERNMENT

Lt.-Governor : T. V. Rajeshwar

Council of Ministers

Chief Minister : Gegong Apang

Ministers : Khapriso Krong, Tsering Tashi, Tadar Tang, Tadak Dulom and Tengam Ngemu.

Deputy Ministers : Kameng Dolo and Haijen Ponglaham.

Legislative Assembly

Speaker : T. L. Rajkumar

Deputy Speaker : Pasang Wangchuk Sona

High Court

The jurisdiction of the Gauhati High Court extends over Arunachal Pradesh. For the list of judges, see under Assam.

Public Service Commission

Recruitment is made through special selection boards constituted by the Union Ministry of Home Affairs in respect of Group A and B posts.

Chief Secretary : Ravinder Kumar Ahooja

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AREA, PAPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km.)	Population	Headquarters
1. West Kameng	9,594	63,302	Bomdila
2. East Kameng	4,131	42,736	Seppa
3. Lower Subansiri	13,010	1,12,650	Ziro
4. Upper Subansiri	7,032	39,410	Daporijo
5. West Siang	12,006	74,164	Along
6. East Siang	6,512	70,451	Pasighat
7. Dibang Valley	13,029	30,978	Anini
8. Lohit	11,402	69,498	Tezu
9. Tirap	7,024	1,28,650	Khonsa

CHANDIGARH

Area : 114 sq km
Capital : Chandigarh
Population : 4,51,610
Principal languages : Hindi and Punjabi

AGRICULTURE

At present, about 3,100 hectares land is cultivable, out of which about 2,700 hectares are irrigated. Wheat, maize and paddy are the major crops. The production of foodgrains in 1982-83 was 3,356 tonnes. The forest covers 27 per cent of the area.

INDUSTRY

There are 14 large and medium scale units in Chandigarh, out of which 2 are public undertakings. More than 1,480 units are registered under small scale industries sector. The total annual production of large and small scale industries is about Rs 66.5 crore. The industry provides employment to about 17,500 persons.

Large and medium scale industrial units produce hosiery and knitting machine needles, wool tops, electric meters, cycle free-wheels and rims, antibiotics, card boards, etc. Small scale units are engaged in the production of steel fabrication, door fittings, spun pipes, sanitary fittings, electronic components and equipments, cutlery, machine screws, bifurcated rivets, hardware, electrical appliances including washing machines, plastic shoes and other items, cotton ginning machine parts, utensils, paints and varnishes, radio and transistors, auto parts, insecticides and pesticides, auto cables and domestic cables, thermometers, wire drawing and wire products, soap and chemicals, cement pipes and tiles, *dal* and oil mills, cycle tubes and tyres, electrical control switches and accessories, tractor parts, ropeways, helmets, sodium silicate, mining machinery parts, synthetic *newar,* textile weaving bandages, *ayurvedic* drugs, electric chokes, colour photography, truck and three wheeler body makers, chaff cutter blades, etc.

IRRIGATION AND POWER

Chandigarh gets 3.5 per cent share of the total power generation from Bhakra complex. A stand-by arrangement to produce electricity to the extent of 2 megawatts is also available in case of major shutdowns. The per capita power consumption in the union territory is 525 units.

All the 22 villages have been electrified and provided with street lights. The land is being irrigated through 171 diesel engines and 538 power based tubewells.

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IMPORTANT TOURIST CENTRES — Important centres are : Rose Garden, Rock Garden, Shanti Kunj, Lake, Museum and Art Gallery, Capital Complex, National Gallery of Portraits, etc.

GOVERNMENT — *Chief Commissioner* : K. Banarji

DADRA AND NAGAR HAVELI

Area : 491 sq km
Capital : Silvassa
Population : 1,03,676
Principal languages : Bhili/Bhilodi, Gujarati and Hindi

AGRICULTURE — Agriculture is the principal occupation of the *adivasis* who comprise 89 per cent of the total population. Paddy, *ragi*, pulses and fruit crops are the major crops; wheat, vegetables and sugarcane are also grown. About 22,700 hectares of land is under cultivation. Ninetysix per cent of the area is under dry land farming.

There is one veterinary hospital and eight veterinary aid centres. Free treatment is being given to the livestock of the territory at these centres. There is one government dairy demonstration farm with 34 buffaloes, one bull rearing farm and one piggery demonstration farm at Silvassa. A feed compounding unit for preparation of balanced feeds for cattle, poultry and pigs and one fodder demonstration farm are also functioning. In the government poultry demonstration farm at Silvassa, day old chicks of recognised breeds are reared for three to four months and such reared pullets are distributed to poultry farmers under various schemes. Twenty seven biogas plants have been set up during 1982-83. One mobile dispensary was started during 1982-83 for treating the farmer at his door.

Forests occupy 41.48 per cent of the area; main forest products are teak, *khair, sadad, sivan* and *mahuda*.

INDUSTRY — There is no major industry. Two industrial estates, one at Silvassa on cooperative basis and the other at Masat have been established. A new industrial estate of Khadoli is coming up. There are 148 industrial units including 22 village industries. Total annual production exceeds Rs 40 crore. The products manufactured include spectacle frames and parts, flooring tiles, buckets, bread and biscuits, wood cutting and furniture, *katha* and tenin, spun pipes, plastic moulded articles, chemicals, detergents, art silk fabrics, electrical fixtures, wrist watches, art silk products on power looms, mango nector and vegetable process, wax candles, tin containers, *chappals*, rexine cloth, printing and processing of art silk and cotton fabrics, foam rubber, etc. These industries are providing employment to more than 3.500 persons.

IRRIGATION AND POWER — There is no major or medium irrigation scheme. However, the union territory is participating with the Gujarat Government and Goa, Daman and Diu in Damanganga reservoir project. Minor irrigation projects include construction of 24 lift irrigation schemes, 15 check dams, three tubewells and 12 open wells. Total area under irrigation is 547 hectares.

Power is purchased from Gujarat.

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GOVERNMENT *Administrator* : K. T. Satarawala

High Court The jurisdiction of Bombay High Court extends over the union territory. For the list of judges, see under Maharashtra.

Public Service Commission Recruitment for higher posts is made through the Union Public Service Commission.

DELHI

Area : 1,483 sq km
Capital : Delhi
Population : 62,20,406
Principal languages : Hindi, Punjabi and Urdu

AGRICULTURE Wheat, gram, rice, maize, *bajra* and *jowar* are the principal food crops. Small quantities of cash crops, such as sugarcane, mustard, tobacco and chillies are also grown. Mixed cropping and mixed farming including animal husbandry, poultry and vegetable production are becoming popular. The total cultivated area in 1981-82 was 82,432 hectares with an overall foodgrain production of 1,26,914 metric tonnes.

INDUSTRY There are about 50,000 industrial units employing approximately 4.80 lakh workers in 1981-82. The total investment in these units was estimated at Rs 900 crore and the value of total production was estimated at Rs 2,350 crore. Prominent industries are steel castings, drugs and chemicals, paints and varnishes, television sets, radios, transistors, electrical appliances, scientific instruments, ready-made garments and vegetable oils. Other industries include leather and rubber goods, pottery, textiles and tanning. The well-known cottage industries of Delhi are ivory work, gold and silver embriodery, jewellery, brass and copperware.

IRRIGATION AND POWER There is no major irrigation project in Delhi. Only minor works and tubewells help in irrigation. Total irrigated area was 50,545 hectares and unirrigated area was 31,887 hectares. The 18.3 km long right marginal embankment alongwith Yamuna from Palla to Wazirabad has been completed. Construction of new flood embankment on the right bank of Yamuna from Okhla to Jaitpur has been taken up. This will provide protection to six villages between Mathura Road and the river near Badarpur. The capacity of Najafgarh drain is being increased from 3,000 cusecs to 8,000 cusecs from Dhansa Bandh to Kakraula regulator and 10,000 cusecs from Kakraula regulator to its outfall in Yamuna.

A scheme for the extension of effluent irrigation from Okhla sewage treatment plant to Mehrauli and Najafgarh blocks to irrigate 8,000 hectares at an estimated cost of Rs 6.90 crore has been sanctioned.

The total generation of Delhi Electric Supply Undertaking (DESU) from its own plant was 1,388 mu in 1982-83 as against 1,326 mu generated in 1981-82. To augment the generating capacity, DESU has submitted proposals for new generating units.

The DESU has installed electrostatic precipitators on all the five units in the Indraprastha Power Station, thereby eliminating the smoke nuisance from the three chimneys.

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GOVERNMENT *Lt. Governor* : Jagmohan

Metropolitan Council

Chairman : Purushottam Goyal

Deputy Chairman : Smt. Tajdar Babar

Chief Executive Councillor : Jag Parvesh Chandra

Executive Councillors : Bansi Lal Chauhan, Prem Singh and Kula Nand Bhartiya

High Court

Chief Justice : Prakash Narain

Judges : Rajinder Sachar, Dalip K. Kapoor, T. P. S. Chawla, A. B. Rohatgi, R. N. Aggarwal, H. L. Anand, Yogeshwar Dayal, S. S. Chadha, M. L. Jain, S. Ranganathan, Leila Seth, N. N. Goswamy, Sultan Singh, S. B. Wad.

Chief Secretary : R. M. Agarwal

GOA, DAMAN AND DIU

Area : 3,814 sq km	*Population* : 10,86,730
Capital : Panaji	*Principal languages* : Konkani, Marathi and Gujarati

AGRICULTURE Irrigated area is about 10 per cent of the total cultivated area. Rice is the main important food crop. Pulses and *ragi* and other food crops are grown. The main cash crops are coconut, cashewnut, arecanut and fruits like pineapple, mango and banana.

Forests cover 28.4 per cent of the total area.

INDUSTRY By March 1983 the number of registered small scale units stood at 2,689, employing 19,482 persons with an investment of around Rs 47.52 crore. These include, among others, workshops, bakeries, printing presses, saw mills, tyre retreading units, fruit and fish canning, cashewnut processing. mosaic tiles, soap manufacture, furniture, typewriter ribbons, carbon paper, automobile batteries, acrylic sheets, polythene bags, sodium silicate, fishing nets, zip fasteners, stoves, footwear, spectacle frames, chemicals, stainless steel ware, rice and flour mills, aluminium collapsible tubes, sports goods, readymade garments, industrial valves and furnaces, flash guns, audio visual equipments and assembly of watches and TV sets, etc. During 1981-82, goods valued at Rs 5.04 crore were exported.

The mineral wealth consists of iron ore, manganese, ferro manganese, bauxite and silica sand. The mining industry contributes substantially to the economy of the territory employing over 25,000 persons.

IRRIGATION AND POWER A number of minor irrigation schemes such as lift irrigation schemes, *bandharas*, tanks, etc., have been taken up. The irrigable area during 1981-82 was 13,601 hectares.

Some major and medium irrigation schemes are Salauli, Tilari, Damanganga, Anjune and Mandovi. Irrigation schemes on proper lines with an irrigation potential of over 43,000 hectares have been taken up.

Out of 424 villages, 395 were electrified till August 1982.

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IMPORTANT TOURIST CENTRES

Important tourist centres are: Colva, Calangute, Vagator, Harmal, Anjune and Miramar beaches, Basilica of Bom Jesus and Se Cathedral churches; Kavalem, Mardol, Mangueshi and Bandora pilgrimage centres; Aguada, Terekhol Chapora and Cabo-de-Rama forts; Dudhsagar and Harvalem waterfalls and Mayem lake resort.

GOVERNMENT

Lt.-Governor : K. T. Satarawala

Council of Ministers

Chief Minister : Pratapsing Raoji Rane

Cabinet Ministers : Anant N. Naik, Francisco C. Sardinha, Shaikh Hassan and Harish N. P. Zantye

Legislative Assembly

Speaker : Froilano Machado

Deputy Speaker : Vaikunth G. Gauns Desai

High Court

A new District Court, South Goa, has been constituted. A Bench of the Bombay High Court in Goa has been set up at Panaji.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary : K. K. Mathur

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Goa	3,702	10,07,749	Panaji
2. Daman	72	48,560	Daman
3. Diu	40	30,421	Diu

LAKSHADWEEP

Area : 32 sq km
Capital : Kavaratti
Population : 40,249
Principal language : Malayalam

AGRICULTURE

Coconut is the only major crop with a turnover of over Rs 2.17 crore in 1981. The area under coconut cultivation in 1980-81 was about 2,780 hectares. There are dairies at Kavaratti and Minicoy and poultry farms at Andrott, Kadmat, Kalpeni, Minicoy, Kavaratti, Agatti and Kiltan.

INDUSTRY

Fishing is the main industry. The sea around the islands is highly productive. Some major recent developments worth mentioning are increase in the number of mechanised boats to 264 operated from both the inhabited and the uninhabited islands landing about 4,200 tonnes of fish.

Lakshadweep now stands first in the country in the per capita availability of fish which is much higher than any other area in the country.

POWER

Lakshadweep during 1982-83 achieved the objective of round the clock electrification, two years ahead of schedule. With the electrification of Bitra in February 1983, 24-hour power supply has been brought about in all the ten inhabited islands. Bitra is a remote tiny

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speck of an island having an area of 0.1 sq km with a small population of 181 persons.

GOVERNMENT *Administrator* : Omesh Saigal

High Court — The jurisdiction of the Kerala High Court extends over Lakshadweep. For list of judges, see under Kerala.

Public Service Commission — Recruitment to Group A and B posts is made through the Union Public Service Commission.

MIZORAM

Area : 21,081 sq km	*Population* : 4,93,757
Capital : Aizawl	*Principal languages* : Mizo and English

AGRICULTURE — About 87 per cent of the people of Mizoram are engaged in agricultural pursuits. Irrigated area forms seven per cent of the total cultivated area. On the hill slopes, maize and paddy are cultivated. Other crops grown are pulses, sugarcane, chillies, ginger, tobacco, vegetables, turmeric, potato, banana and pineapple. Shift cultivation is ordinarily practised though terraced rice cultivation and wet rice cultivation practices have also been taken up.

Forests cover about 38 per cent of the area. Important forest products are timber, bamboo and *agar*.

INDUSTRY — Handloom and handicrafts are the main cottage industries. Rice, oil and flour milling mechanised bamboo workshops, saw mills, aluminium casting and furniture workshops are some of the small scale industries.

IRRIGATION AND POWER — Schemes like the cementing for water points, construction of small reservoirs at the collection points in the streams of springs and some improvised way of bringing water as near the villages as possible are being implemented. Irrigation is difficult due to mountainous terrain.

There are forty-nine diesel power stations to generate electricity mainly for domestic consumption at various villages and towns. The total power installation capacity is estimated to be about 5.94 mw. Investigation for installation of mini micro-hydel projects are being started in two different parts. Bairabi Hydel Project is expected to generate 160 mw while the Serlui A Micro-Hydel Project 1 mw.

GOVERNMENT *Lt.-Governor* : Hari Shankar Dubey

Council of Ministers — *Chief Minister* : Brig. Thenphunga Sailo

Ministers : Lalhmingthanga, Zairemthanga, F. Malsamma, P. B. Rosanga.

High Court — The jurisdiction of Gauhati High Court extends over Mizoram. For the list of judges, see under Assam.

Public Service Commission — Appointment of Class I and II officers is made by the Lt.-Governor.

Chief Secretary : A. H. Scott

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PONDICHERRY

Area : 492 sq km
Capital : Pondicherry
Population : 6,04,471
Principal language : Tamil and French

AGRICULTURE

About 45 per cent of the population is engaged in agriculture and allied pursuits. 89 per cent of the cultivated area is irrigated. Rice is the main food crop. Other crops grown in small quantities are *ragi* and *bajra*. Sugarcane, groundnut and cotton are the principal cash crops.

There is no forest or mountain. The union territory consists of four non-contiguous settlements, *viz.* Pondicherry, Karaikal, Mahe and Yanam. The first three are on the sea coast and the fourth is in the East Godavari delta.

INDUSTRY

Most of the industries are medium units and primarily consumer oriented like sugar, electrical appliances, leather goods, cycle parts, steel products including stainless steel vessels, handicrafts and handloom cloth. The union territory has a few large scale units in cotton textiles and in paper and boards. Three medium units are manufacturing rice-bran oil.

IRRIGATION AND POWER

Irrigation is mainly through rain-fed tanks. There are about 87 tanks. In Karaikal the irrigation system depends on the Kaveri. The entire network of canals, etc. is very old. Therefore, many modernisation schemes have been taken up and are in progress. There is no generation of power in the territory. The whole requirement is met by the neighbouring states.

IMPORTANT TOURIST CENTRES

Some of the important tourist centres are : Joan of Arc Square, War Memorial, Gandhi Square, Samadhi of Sri Aurobindo and the Mother, Bharathiar and Bharathidasan Memorials, Government Park and Park Monument, Museum, Sacred Heart of Jesus Church, Botanical Garden and Auroville.

GOVERNMENT

Lt.-Governor : Kona Prabhakara Rao

Legislative Assembly

Speaker : M. O. H. Farook

Deputy Speaker : L. Joseph Mariadoss

High Court

The jurisdiction of Madras High Court extends over Pondicherry. For list of judges, see under Tamil Nadu.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary : R. Badrinath

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
1. Pondicherry	293	4,44,188	Pondicherry
2. Karaikal	160	1,19,966	Karaikal
3. Mahe	9	28,401	Mahe
4. Yanam	30	11,627	Yanam

1. The Union Territory of Pondicherry was placed under Presidents rule on 24 June 1983.

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28 DIARY OF EVENTS—1982

January

1 Prime Minister Indira Gandhi calls for vigorous steps to provide greater security to persons belonging to the scheduled castes. Expresses concern at the Sarhupur killings in Mainpuri district of Uttar Pradesh.

— The 36-hour blockade stir launched by the Assam movement leaders in the state ends. Four persons killed in police firing in Nowgong district.

— A new group insurance scheme for the Central Government employees comes into force.

2 The Prime Minister denies the charge that the Centre had pressurized the Kerala Governor for installing the United Democratic Front government in the state.

— In Assam, train services on the Rangapara-Tezpur branch suspended following an explosion on the track between Thakurbarie and Binduguri stations.

— David Abraham, 73, a noted character actor of Hindi films dies in Toronto, Canada.

3 Inaugurating the annual session of the Indian Science Congress in Mysore, the Prime Minister announces a 3-pronged plan to provide more employment to scientists.

— Filmotsav-82 begins in Calcutta.

— A new air route between Amritsar and Birmingham (UK) *via* Moscow is inaugurated.

— Shashi Menon retains the men's singles title of the National Lawn Tennis championships in New Delhi while Anu Peswaria claims the women's title.

4 The Prime Minister leaves New Delhi on a 3-day visit to Karnataka and Kerala.

— Top Assam movement leaders held for defying prohibitory orders.

5 Sahitya Akademi awards for 1981 announced.

— An official level meeting of the Indo-Algerian joint commission begins in New Delhi.

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— C. Ramachandra, 63, a noted film music director dies in Bombay.
— The West Bengal Government requests the Election Commission to arrange elections to the new Legislative Assembly by 15 March.
6 Nawab of Chhattari, 94, a former Chancellor of the Aligarh Muslim University, and the first Indian Governor of the United Provinces of Agra and Oudh during the British rule, dies in Aligarh.
— A three-member Soviet youth delegation arrives in New Delhi on a 10-day visit to India.
— The fourth cricket test between India and England ends in a draw in Calcutta.
7 The National Campaign Committee of Trade Unions demands repeal of the Essential Services Maintenance Act (ESMA) as a condition for postponing the one-day all-India general strike scheduled for 19 January.
— President Neelam Sanjiva Reddy lays the foundation stone of the Rs 80 crore second captive power plant of Rourkela steel plant.
— India loses to Australia (1—2) in the pool match of the world Cup Hockey championships in Bombay and fails to enter semi-finals.
8 The first World Urdu Conference opens in Chandigarh.
— Arjuna awards for outstanding sportsmen for 1980-81 announced.
9 The leader of the Congress (I) Legislature Party in Assam and the former Chief Minister Anwara Taimur resigns from the party leadership.
— A 21-member Indian Scientific expedition team led by Dr. S. Z. Qasim lands on Antarctica in the Indian Ocean to reach the ice-peaked continent, the fifth largest in the world.
— Four major non-communist opposition parties (Bharatiya Janata Party, Lok Dal, Congress (S) and Janata Party) appeal to Prime Minister to convene an all-party meeting to evolve a national consensus on growing atrocities against persons belonging to scheduled castes.
— The Chief Ministers of Hindi-speaking states decide to adopt a common glossary of simple Hindi words and terminology for official use.
— The Ardh Kumbh mela begins at Allahabad.
10 An expert committee set up by the Election Commission recommends one-day country-wide polling.
— Sudhir Dasgupta, 52, a noted Bengali film music director dies in Calcutta.
11 A Rs 350 crore scheme for industrialisation launched in Himachal Pradesh.
— Keshab Chandra Gogoi elected leader of the Congress (I) Legislature Party in Assam.
— The 36-hour statewide stir ends in Assam.
— Twenty extremists escape from Imphal central jail.
— Brij Mohan Birla, 77, an industrialist, dies in Calcutta.
— India defeats Soviet Union by 5—1 and gets fifth place in the fifth World Cup Hockey championship in Bombay.
12 Maharashtra Chief Minister A. R. Antulay resigns following

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the Bombay High Court's decision in the cement allotment case.

— Jyotirmoy Bosu, 58, a veteran CPI (M) leader and a member of the Lok Sabha, dies in Jaipur.

— Pakistan's aid memoire on 'no war proposals' describes many Indian suggestions as constructive.

13 Keshab Chandra Gogoi of Congress (I) sworn in as Chief Minister of Assam. Presidents rule revoked.

— The Indo-Bangladesh talks on the New Moore Island and the sharing of Farakka waters begin in New Delhi.

— Oil struck in a new well in Palk Strait.

14 Prime Minister Indira Gandhi announces the Revised 20-Point Programme for national development. She proposes a new national motto, *Shram Eva Jayate* (Work alone wins).

15 The Prime Minister reshuffles the Council of Ministers. R. Venkataraman becomes Minister for Defence, Pranab Mukherjee moves to Finance, Prakash Chand Sethi to Railways and Kedar Pandey to Irrigation. One new cabinet Minister, two Ministers of State and seven Deputy Ministers inducted. Chandulal Chandrakar, Maganbhai Barot and P. Venkata Reddy dropped.

16 The Calcutta High Court orders the West Bengal Government to maintain normal transport services on the threatened *Bharat Bandh* on 19 January.

— The Oil and Natural Gas Commission finds presence of oil and gas in the second well on B-57 structure of Bombay High.

18 The first round of tripartite talks on the foreign nationals' issue in Assam open in New Delhi.

— A new microwave link between India and Sri Lanka becomes operational.

— The fifth cricket test match between India and England ends in a draw in Madras.

— R. K. Narayan, a noted Indian novelist made an honorary member of the American Academy and Institute of Arts and Letters.

19 Opposition parties organise industrial strike. Barring stray incidents of violence, life remains normal throughout the country.

— Banaras Hindu University closed following violence.

20 The Supreme Court vacates the general stay of all executions of condemned convicts.

— The Centre bans the Mizo National Front.

— Babasaheb Anantrao Bhosale is sworn in as the Chief Minister of Maharashtra.

— The three-day tripartite talks on Assam foreigners' issue adjourn in New Delhi. Accord on four points reached.

21 The one-man enquiry report on the Qutab tragedy on 4 December 1981 in New Delhi blames laxity on the part of the Archaeological Survey of India and the Delhi Electricity Supply Undertaking.

22 Opening a three-day International Youth Conference, the Prime Minister asks youth to build up a people's movement for peace, disarmament and harmony.

— Fifteen-member Congress (I) Ministry headed by K. C. Gogoi assumes office in Assam.

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— Lok Dal, Janata Party and Congress (S) decide to merge into a new party.
— Official level talks between India and Bangladesh on inland water transit and trade end in New Delhi without any agreement.

23 The two-day meeting of the Indo-European Economic Community Joint Commission in New Delhi decide to set up a Working Group. An agreement is signed for establishing an EEC office in India.

24 The Minister for Home Affairs says a village security force would be raised to check atrocities on persons belonging to scheduled castes.

25 President Neelam Sanjiva Reddy calls for a national consensus among all groups on major issues facing the nation.
— Mira Behn, an associate of Mahatma Gandhi, honoured with Padma Vibhushan. Besides, 15 eminent persons awarded Padma Bhushan and 31 Padma Shri.
— King Juan Carlos of Spain arrives on a 7-day state visit to India.
— India draws another $ 300 million special drawing rights from the International Monetary Fund.
— A 15-member Council of Ministers led by Babasaheb Anant rao Bhosale is sworn in in Maharashtra.

26 At the Republic Day parade in New Delhi, the President gives away Ashoka Chakra to Captain Pithawala.
— Railway's new tourist attraction "Palace on Wheels" inaugurated.
— India and the Soviet Union sign a protocol in New Delhi to cooperate in the field of non-ferrous metallurgy.

27 Over 60 passengers killed when Dakshin Express collides with a goods train at Agra.
— Dr. K.L. Wig, former Director of the All India Institute of Medical Sciences, New Delhi and Dr. Harindranath Chattopadhyaya, an eminent poet get Dr. B.C. Roy National Award for 1981.

28 The Chief Election Commissioner postpones the publication of the West Bengals' revised electoral rolls.
— The Karnataka Government bans ragging in educational institutions.

29 Foreign Minister of Pakistan Agha Shahi arrives on a three-day official visit to New Delhi; holds talks with External Affairs Minister Narasimha Rao on bilateral issues.
— The Bihar Government orders prosecution of 40 police and medical officials involved in the Bhagalpur blinding case.
— The Indian entry at the first Manila International Film Festival *36 Chowringhee Lane* wins the Golden Eagle award for the best picture.

30 The Prime Minister assures Pakistani journalists that India will not attack Pakistan whether there is a no-war pact or not.
— Oil and gas found in Broach district of Gujarat.
— Palden Thondup Namgyal, 58, the former Chogyal of Sikkim, dies in New York.
— India and West Germany sign an agreement in New Delhi to cooperate in aeronautical research.

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31 Pakistan accepts India's proposal to set up a joint commission to review bilateral relations.
— The Centre approves Rs 100 crore plan for the development and modernisation of the Coast Guard.
— The President lays the foundation stone for a planetorium in Bangalore.
— Murderers of Chopra children Billa and Ranga hanged in Tihar jail in Delhi.
— Bengal lifts the Santosh Trophy for national football championship for the 20th time.

February

1 The three-day talks between Foreign Ministers of India and Pakistan conclude in New Delhi with an understanding to have further discussion on the no-war pact at the official level, to be held at Islamabad later this month.
2 The Speaker and the Deputy Speaker of the Kerala Assembly resign.
— Three of the 5 Janata Party MLAs decide to support the Congress (I) led ministry in Kerala.
— Government revises postal rates and telegram charges. Rentals for telex and telephone services and registration charges also go up.
— President Neelam Sanjiva Reddy arrives in Colombo on a 6-day state visit to Sri Lanka.
— The Prime Minister rules out any division of Assam.
— Jaisukhlal Hathi, 73, a former Union Minister and ex-Governor of Punjab, dies in Bombay.
— Mohan Lal Sukhadia, Congress (I) MP and a former Rajasthan Chief Minister dies in Jaipur.
3 The 11.8 metre high Lord Bahubali's statue consecrated at Shravanabelagola in Karnataka.
4 The Fifth World Book Fair opens in New Delhi.
— A no-confidence motion against the Congress (I) led Ministry in Kerala defeated with Speaker's casting vote.
— The sixth and final cricket test between India and England ends in a draw in Kanpur. India wins the rubber 1—0.
5 The Prime Minister lays the foundation-stone of the first gas based Rs 980 crore fertilizer project at Hazira near Surat in Gujarat.
6 The Prime Minister lays the foundation-stone of Martyrs' Memorial in Chauri Chaura near Gorakhpur in Uttar Pradesh.
7 Twenty-three military personnel killed in an IAF plane crash near Jammu.
— The Prime Minister says the Revised 20-Point Programme should be treated as the core of the Sixth Plan.
— The Central Government notifies a list of 16 categories of essential supplies and services whose disruption would entail detention under the National Security Act.
8 The 12th International Congress of Soil Sciences opens in New Delhi.
— Zonal councils reactivated to settle inter state disputes.
— Fifteen persons die of liquor poisoning at Kazipet near Warangal in Andhra Pradesh.
— Vice-President Hidayatullah calls for retention of death penalty.

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9 The national income during 1980-81 records an increase of 7.7 per cent over 1979-80.

— The Speaker of the Kerala Assembly exercises his casting vote seven times to save Karunakaran Ministry.

— The Chief Election Commissioner announces that the final electoral rolls of West Bengal will be published by 1 March.

10 Swedish Prime Minister Thorbjorn Falldin arrives in New Delhi on a nine-day official visit.

— The second round of tripartite talks on the foreign nationals' issue in Assam end in New Delhi without any agreement.

11 India and Sweden sign an agreement in New Delhi under which India will receive help in setting up a chain of power generating plants, mini-steel plants and in exploring ocean resources.

12 The Minister for External Affairs leaves New Delhi on a five-day visit to Vietnam and Thailand.

— The leader of the Indian Antarctica expedition says in New Delhi that an under-sea mountain discovered by the expedition on 26 December 1981 in the Southern Indian Ocean has been named as *Indira Mount*.

13 The Prime Minister says in Bhopal that there is no proposal to hold mid-term elections in any state and these would be held wherever due. She inaugurates the Bharat Bhawan.

— The Minister for Railways dissolves all the 55 Consultative Committees connected with railways.

14 Work on country's fifth Atomic Power Station begins at Vadodara in Gujarat.

— Prakash Padukone wins the men's singles title in the Dutch Badminton Open Championship at Nieu Wegein, Netherlands.

15 The first 200 megawatt unit of the Singrauli Super-thermal power station commissioned in Uttar Pradesh.

16 The Indian Space Research Organisation launches from Sriharikota in Andhra Pradesh two rockets to study the ionosphere.

17 Centre appoints Justice P.D. Kudal as the one-man commission to enquire into the working of the Gandhi Peace Foundation and other connected organisations.

— The International Congress of Surgeons opens in New Delhi.

— South Korean Foreign Minister Shingyong Lho arrives in New Delhi on a five-day visit.

18 Opening the Budget session of Parliament, President Reddy expresses satisfaction over the growth in various sectors of economy.

— Crown Prince Hassan Bin Talal of Jordan arrives in New Delhi on a week's visit to India.

— India and Bulgaria agree in New Delhi to set up a working group to promote and identify areas of cooperation.

19 In Manipur, 21 army men are reported killed in an ambush by the insurgents.

— Shivaji Ganesan, a popular Tamil film star and Prof. Asima Chatterjee, a noted scientist nominated to the Rajya Sabha.

20 Madhya Pradesh, Uttar Pradesh and Bihar sign an agreement in New Delhi on sharing of Kanhar waters.

— Andhra Pradesh Chief Minister T. Anjiah submits his resignation.

— G.K. Devarajulu elected President of the Federation of Indian Chambers of Commerce and Industry for 1982-83 in New Delhi.

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21 Indian Antarctica expedition team returns home.

22 The Prime Minister inaugurates the conference of 44 developing countries on a dialogue on global economic issues in New Delhi.

— The 1981 Third World Foundation Award presented to Tanzanian President Julius Nyerere at a function in New Delhi, by the Prime Minister.

— The meeting of the expert group of Non- aligned Inter-Governmental Council for Coordination of Information begins in New Delhi.

— Prof. G.P. Talwar receives Birla Smarak Kosh award of rupees one lakh for outstanding research in medical field.

— India conveys its strong protest against Pakistan's attempt to raise the Kashmir issue at the UN Human Rights Commission.

23 The Railway Budget for 1982-83 presented in Parliament. An all-round increase in fares, parcels and freight rates proposed. New levies to yield Rs 261·45 crore.

— The Supreme Court asks the Calcutta High Court to complete the hearing of the writ petition challenging the publication of the final electoral rolls of West Bengal.

24 The pre-budget economic survey for 1981-82 reflects a 4·5 per cent growth in the gross national product and drop in the inflation rate.

— Following Pakistan's reference to Kashmir at the Human Rights Commission in Geneva, India decides to defer indefinitely the visit of the Foreign Secretary R.D. Sathe to Islamabad for talks on a no-war pact.

— Justice Yogeshwar Dayal of the Delhi High Court to enquire into the death of Sikh leader Jathedar Santokh Singh and another person on 21 December 1981.

— The two day meeting of the economic and commercial sub-commission of the Indo-US joint commission ends in New Delhi.

— Bhavanam Venkatarama and C. Jagannatha Rao of Congress (I) are sworn in as Chief Minister and Deputy Chief Minister of Andhra Pradesh respectively.

25 Justice J. S. Mukherjee of the Calcutta High Court extends his interim order staying publication of electoral rolls of West Bengal.

— India and Pakistan sign a new agreement in New Delhi on rail communication.

26 Biennial elections to 68 Rajya Sabha seats from 16 states to be held on 19, 27 and 29 March.

27 The Union Budget for 1982-83 presented in Parliament. Fresh levies to net Rs 533 crore. Budget deficit placed at Rs 1,365 crore.

28 The Andhra Pradesh Ministry expanded with the induction of 32 ministers.

— The 21st meeting of the Indo-Bangladesh joint river commission in Dacca decides to reactivate the Standing Committee and Local Committee for resolving river disputes.

— The IAF demonstrates its fire power capabilities at the Tilpat range near Delhi.

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March

1 Air Chief Marshal I. H. Latif appointed Governor of Maharashtra and Air Chief Marshal O. P. Mehra as of Rajasthan.
— Admiral O. S. Dawson takes over as the Chief of the Naval Staff.
— India lodges strong protest to Bangladesh against the blatant intimidation and harassment of its High Commissioner in Dhaka.
2 The Prime Minister dedicates to the nation the newly built bridge at Patna.
— Natural gas found in the second well at Narsapur in Andhra Pradesh.
— Concessions in rail fare and freight announced in Lok Sabha.
— The Supreme Court admonishes A. K. Sen and four other senior advocates for their statement alleging bias on the part of three judges during the hearing of West Bengal electoral rolls case on 28 February.
— A fresh invitation extended to the leaders of the Assam agitation for talks in New Delhi in the third week of March.
— In Uttar Pradesh, the notorious dacoit Chhabiram and 12 others shot dead in an encounter with the police.
— Raghupati Sahai 'Firaq Gorakhpuri', 86, a noted Urdu poet dies in New Delhi.
3 Keshto Mukherjee, a noted film comedian, dies in Bombay.
— Greek President Constantine Karamanlis arrives in Bombay on a five-day visit to India.
— In Dhaka, violent demonstrators stone the Indian High Cosion library.
4 The Supreme Court vacates West Bengal High Court's stay order on electoral rolls. Bar on publication of rolls goes.
— A.K. Sen and four other advocates express regret in the Supreme Court for their statement on 28 February.
— Delhi-Ludhiana Vayudoot service inaugurated.
— Uruguay lifts the Jawaharlal Nehru Gold Cup Soccer Tournament trophy defeating China 2—0 in Calcutta.
5 In Kerala, the no-confidence motion against the Assembly Speaker A.C. Jose is defeated.
— India and Syria sign an agreement in New Delhi to avoid double taxation.
6 I. H. Latif and O. P. Mehra are sworn in as Governors of Maharashtra and Rajasthan respectively.
— In Simla, a nineteenth century building known as Kennedy Cottage, housing some departments of Himachal Pradesh Government burnt to ashes.
7 According to the provisional census data of 1981, India has a work force of about 38 per cent, which means every third Indian is a worker.
— Thirteen persons are feared killed when a Karnataka State Transport Corporation bus ploughs into a crowd of pilgrims near Sangli in Maharashtra.
8 The Press Council of India is reconstituted.
— The Gogoi Ministry in Assam is expanded with the induction of five more ministers raising the strength of the Ministry to 19.
— Bimal Ghosh, 73, a noted writer of children's literature dies at Kalyani in Nadia district, West Bengal.

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— K. Banerjee takes over as the Chief Commissioner of Union Territory of Chandigarh.

9 Centre announces its decision to set up two more oil refineries one at Karnal in Haryana and the other at Mangalore in Karnataka.

— The number of newspapers register an 8·6 per cent growth in 1979 according to the annual report of the Registrar of Newspapers for India 1980.

— H.C. Sarin is appointed as Chairman of the Railway Reforms Committee.

— Danish Foreign Minister Kjeld Olesen arrives in New Delhi on a two-day visit to India.

10 Dr. G.S. Melkote, 81, a veteran freedom fighter dies in Hyderabad.

11 A centaur rocket is launched from the Vikram Sarabhai Space Centre in Thumba, Kerala.

12 The Rajya Sabha is informed that Shastri-Sirimavo Pact of 1964 relating to grant of citizenship will not be extended.

— In Assam, 66 agitation leaders are taken into custody, as the 20-day new phase of agitation on the foreigners' issue is resumed.

— Justice K.B.N. Singh is sworn in as Chief Justice of Madras High Court.

13 In Uttar Pradesh, a DSP and 13 dacoits are killed in an encounter near Gonda.

14 The National Development Council approves the proposal to set up a national water resources council.

15 Soviet Defence Minister Marshal D.F. Ustinov arrives in New Delhi on a five day official visit.

— The 78-day old Congress (I) led United Democratic Front Ministry in Kerala reduced to a minority as a ruling party M L A withdraws his support.

— The President inaugurates fifth Triennale India (an art exhibition) in New Delhi in which 46 countries are participating.

17 King of Bhutan Jigme Singye Wangchuk arrives in New Delhi on a four-day official visit.

— Kerala comes under President's rule.

— A.P. Venkateswaran is appointed India's envoy to China.

18 The 64-day old Congress (I) Ministry in Assam headed by K.C. Gogoi resigns.

— Parliament sentences 20 persons to seven days' imprisonment for raising slogans and attempting to throw leaflets from the visitors' gallery.

19 Assam comes under President's rule; State Assembly dissolved

— Suspension of Delhi Metropolitan Council extended for another six months.

— Acharya J.B. Kripalani, 94, a veteran Gandhian and an eminent freedom fighter dies at Ahmadabad.

— Pakistan wins the first Asian Cup Hockey Championship Tournament defeating India 4—0 at Karachi.

20 President Neelam Sanjiva Reddy gives away civilian awards at an investiture ceremony in New Delhi.

— In Uttar Pradesh, dacoits kill a judge of the Allahabad High Court and his son in an ambush near Allahabad.

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— Fifty-nine persons killed when a train rams into a bus at a level crossing near Warangal in Andhra Pradesh.
— Twenty-nine rakes of a goods train carrying diesel are burnt in a fire near Jammu.
— Centre raises age limit for ex-servicemen and Commissioned Officers in recruitment to some central services.
21 The Prime Minister arrives in London on a six-day official visit to Britain.
22 'Festival of India' is inaugurated in London by Prime Minister Indira Gandhi and her British counterpart Margaret Thatcher.
— K. M. Chandy is appointed new Lt. Governor of Pondicherry.
23 The Madhya Pradesh Vidhan Sabha passes Lokayukta (Amendment) Bill bringing the Chief Minister within the purview of the Lokayukta.
24 K.D. Sharma and Prabhakar Menon are appointed India's ambassadors to Pakistan and German Democratic Republic respectively.
25 Eighteen persons feared killed when a huge mound of waste coal and cinders collapses near Howrah.
26 The Supreme Court reserves judgement in the Bengal poll case.
— The Himachal Pradesh Vidhan Sabha rejects a bill against defections.
— The 29-day old strike by the junior doctors in Bihar is called off.
28 The 12th Congress of the Communist Party of India concludes its session at Varanasi with a call for a new political line for building left and democratic alternative in the country.
29 Congress (I) wins 47 out of the 63 seats from 9 states in the biennial elections to the Rajya Sabha.
— M. Hidayatullah is nominated as the President of the Indian Red Cross Society.
— C. Rajeshwara Rao is re-elected general secretary of the CPI for the sixth term.
— Delhi wins Ranji Trophy defeating Karnataka by two wickets in New Delhi.
30 The Constitution Bench of the Supreme Court unanimously dismisses the writ petition challenging the publication of electoral rolls in West Bengal. It permits the Chief Election Commissioner to hold assembly elections in the state.
— India signs an agreement with a US firm for oil exploration, off the Saurashtra coast.
— Brijesh C. Mishra is appointed U N Commissioner for Namibia.
31 The first Indian assembled Jaguar passes its test flight successfully.
— Nine eminent scientists receive Shanti Swarup Bhatnagar awards in New Delhi.

April

1 The State Trading Corporation registers an increase of 14 per cent in its exports during 1981-82 to reach Rs 503 crore.
— Bharat Electronics Ltd. makes record turn-over of Rs 126 crore in 1981-82.
2 The Supreme Court directs jail authorities to forward without delay the petitions addressed to courts by inmates.

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— The session of the Haryana Assembly adjourns abruptly amid uproarious scenes. No trust move not debated.
— Octroi duty is abolished in Himachal Pradesh.
— Gobind Behari Lal, 92, a veteran science journalist and a recipient of Padma Bhushan dies in San Francisco, USA.
3 The second Press Commission submits the report to the Government.
— President Sanjiva Reddy gives away gallantry awards to Defence Services personnel at an investiture ceremony in New Delhi.
— Oil is struck in Cambay in central Gujarat.
— India and Afghanistan decide to reactivate joint commission for economic cooperation.
4 The Export Import Bank (Exim Bank) is inaugurated in Bombay.
— Six persons are killed in police firing in Madhubani in Bihar.
— Ten Indians are reported to be in Pak jails without trial.
5 Centre announces a liberalised import policy for 1982-83 allowing concessions to non-resident Indians.
— Akali leaders (Longowal Group) hold talks with the Prime Minister in New Delhi. Reopening of Ravi-Beas Pact ruled out.
6 Lok Dal President Charan Singh announces his retirement from politics.
— The 19-day old strike by non-gazetted employees of Uttar Pradesh is suspended.
— The Railways take up a 10-year programme to accelerate the pace of electrification.
— Japan to observe 1982 as India-Japan year of friendship.
7 Assembly elections in Haryana, Himachal Pradesh, Kerala and West Bengal are to take place on 19 May. Bye-elections to 7 Lok Sabha and 15 assembly seats in different states are also to be held on the same day.
— National Awards for films for 1981 announced. The Bengali film *Dakhal* wins *Swaran Kamal*, the top award for the best feature film.
— The World Bank approves $200 million loan to India to finance the expansion and upgrading of five oil refineries.
— Army Service Corps, Jullundur wins Gold Cup Hockey Tournament defeating Mahindra and Mahindra of Bombay 1—0 in Bombay.
8 The Prime Ministe r inaugurates the construction work on the Satluj Yamuna link canal in Patiala district. She announces the clearance of Rs 500 crore Thein Dam project.
— Biju Patnaik, Devi Lal and Kumbha Ram Arya are suspended from the primary membership of the Lok Dal.
— The third round of tripartite talks on the foreigners' issue in Assam ends in New Delhi without any agreement.
— The Reserve Bank relaxes credit curbs on banks.
— Abhivan Sachidanand Tirth Maharaj, 70, the Shankaracharya of Dwarka, dies at Veraval in Gujarat.
— Mozambique President Marshal Samora Moises Machnel arrives in New Delhi on a five-day visit to India.
9 India and Mozambique sign a protocol and cultural agreement in New Delhi.

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10 The multipurpose Indian satellite INSAT-1A successfully shot into orbit from Cape Canaveral, USA.
— The Prime Minister says at Paunar that the demand for a total ban on cow slaughter cannot be accepted.
— The foundation stone of INSAT television and radio complex laid at Nagpur by the Prime Minister.
— Acharya Damodar Sharma Gaur of Varanasi selected for the first Ramnarayan Baidya Ayurved Research Trust Award of rupees one lakh for his classic on ayurveda, *Abhinavam Shariram*.
11 INSAT-1A placed in the intermediate orbit successfully.
— The Bharatiya Jnanpith award for 1981 goes to Punjabi poetess and writer Amrita Pritam for her poetical collection *Kagaz Te Kanwas*.
12 Dr. M. Chenna Reddy is appointed Governor of Punjab.
13 India signs a deal with a French firm for the purchase of 40 Mirage 2000 fighter aircraft.
— Prof. M.G.K. Menon and Dr. Hanumantha Rao are appointed members of the Planning Commission.
— Eleven members of the outlawed People's Liberation Army of Manipur killed in exchange of fire near Imphal.
— Pandit Parmanand of Jhansi, 93, a veteran revolutionary dies in New Delhi.
— Bindeshwari Prasad Mandal, 64, a former Bihar Chief Minister dies in Patna.
14 India and Hungary sign a new cultural agreement in New Delhi.
— Vayudoot, the feeder air service is introduced in Bihar, linking Patna with Muzaffarpur, Ranchi, Jamshedpur and Calcutta.
15 Wheat procurement price fixed at Rs 142 per quintal for the current rabi season.
— It is officially announced in New Delhi that colour TV will be introduced in the country in a phased manner.
— The Unity Convention of opposition parties opens at Chandigarh. It stresses the need for the creation of a political alternative for solving the problems of the people.
— Lok Dal President Charan Singh decides to return to active politics.
— Children of poor families in Himachal Pradesh are to get free education up to degree level.
— Centre orders Laldenga, the leader of the banned Mizoram National Front to leave the country by 21 April.
— Dholpur becomes the 27th district of Rajasthan.
16 Janata Party, the Congress (S) and a faction of the Lok Dal adopt a resolution to contest the coming elections with a common strategy.
— Achyut Barve, 55, a noted Marathi writer dies in Bombay.
17 The Prime Minister arrives at Jeddah on a four-day visit to Saudi Arabia.
— Dada Saheb Phalke award for outstanding contribution to the cause of Indian cinema for 1981 goes to Naushad Ali.
— Nagaland and Assam sign an agreement to resolve the border dispute between them.
— The Minister for External Affairs arrives in Tokyo on a five-day visit to Japan.

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18 India and Saudi Arabia are to set up a joint commission for cooperation between the two countries.
— Lok Dal President Charan Singh revokes suspension orders of three Lok Dal leaders.
19 The Haryana and Himachal Pradesh Assemblies dissolved to pave way for elections.
— The non-INTUC trade unions observe one-day *bandh* in Maharashtra.
— India and Japan agree to expand trade, scientific and economic cooperation.
20 The first mini-cement plant of 20 tonnes is commissioned at Jodhpur.
— India condemns South Africa for passing the death sentence on three African nationalists.
21 INSAT-1A placed in the parking slot.
— The Reserve Bank announces several incentives for investment by Indians living abroad.
— President Neelam Sanjiva Reddy gives away Arjuna awards to outstanding sportsmen in New Delhi.
22 The Minister for Finance announces tax concessions totalling Rs 16 crore.
— Algerian President Chadle Bendedid arrives in New Delhi on a four-day state visit.
— India condemns Israeli air raids in Lebanon.
— Ghouse Mohammed, a famous tennis player dies in Hyderabad.
23 INSAT 1A transmits colour TV signals.
— The world conference on 'Indian Ocean—Zone of Peace' opens in New Delhi.
— Centre rules out change in its decision to reorganise the Life Insurance Corporation by splitting it.
24 The Election Commission grants ad-hoc recognition to Akali factions—Talwandi and Longowal. The two are recognised as state parties in Punjab.
25 INSAT 1A transmits the image of earth's full disc.
— Delhi Doordarshan begins its telecast in colour.
26 The Prime Minister inaugurates the Indian Co-operative Congress in New Delhi.
— Cyclone kills 12 persons in Cachar district of Assam.
— Mahadevi Verma, a noted writer gets Uttar Pradesh Hindi Sansthan award of rupees one lakh for her contribution to Hindi literature.
27 Shoot-at-sight order is issued in Amritsar as violence spreads. A 24-hour curfew is imposed in certain areas of the city.
— The Lok Sabha passes the Finance Bill.
— President Neelam Sanjiva Reddy presents the National Film awards in New Delhi.
28 Shyam Lal Yadav is re-elected Deputy Chairman of the Rajya Sabha.
— Iranian Foreign Minister Ali Akbar Velayati arrives in New Delhi on a five-day official visit.
— India and Vietnam agree to establish a joint committee on economic and technical cooperation.
29 Both the Houses of Parliament condemn the act of sacrilege in Amritsar. The Lok Sabha unanimously passes a resolution

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calling upon the people of Punjab to maintain peace and harmony.

— Seven Haryana ministers submit their resignations.

30 Mandal Commission on Backward Classes recommends that 27 per cent of central and state government jobs should be reserved for backward classes.

— The Prime Minister inaugurates the first National Conference on Environment for Legislators in New Delhi.

— Iran seeks India's assistance in the development of its steel industry.

— In Calcutta, 17 Anand Margis are reported killed and burnt by a mob.

May

1 The Lok Sabha adjourns sine die.

— Centre bans Dal Khalsa and the National Council of Khalistan.

— The UNI launches its Indian language news service starting with Univarta in Hindi.

2 India and Iran agree to set up a joint commission to strengthen bilateral relations.

3 President Neelam Sanjiva Reddy arrives in Dublin on a eight-day visit to Ireland and Yugoslavia.

— The Supreme Court abolishes the practice of depositing security for admission of petitions.

— The conference of 47 developing countries opens in New Delhi. The Heads of the agencies of Science and Technology, representing the Group of 77, are attending.

— The Congress (I) wins 10 out of 13 seats in the Uttar Pradesh Vidhan Parishad.

— Rajni Patel, 67, a veteran politician dies in Bombay.

4 The Assam Government bans strikes in all essential services.

5 Parliament approves the Central Budget for 1982-83.

6 Leaders of the Assam movement give call for a 24-hour *bandh* in Assam.

7 India re-elected to an Asian seat for a three-year term in the UN Human Rights Commission.

— President Neelam Sanjiva Reddy arrives in Belgrade.

— The Heads of the agencies of Science and Technology draw up proposals for increased cooperation among the developing countries.

— India and Yugoslavia urge non-aligned countries to close their ranks.

— Eight persons killed and 19 injured when the bus of a film unit from Madras falls into a *khad* near Bilaspur in Himachal Pradesh.

9 India emerges as the largest producer of groundnuts in the world.

— Centre recommends comprehensive measures to the states to reduce the number of dropouts in primary and middle schools.

10 The Chief Election Commissioner rules out the postponment of 19 May assembly polls.

— It is reported that four Indian Army personnel led by Capt. H. E. Kohli are the first in the world to track the entire Himalayan range of nearly 8,000 km.

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11 The West Bengal Government constitutes a one-man Judicial Commission with Justice Samarendra Chandra Deb to inquire into the killing of 17 Anand Margis.
12 The Prime Minister says in Kerala that her party is committed to multi-party democracy.
— Procurement of wheat by government agencies crosses the 10 lakh tonnes mark.
— Dr. Satya Prakash, 68, a noted archaeologist dies in Jaipur.
14 The Indo-Afghan joint commission begins its three-day meeting in Kabul.
— Nine persons are reported killed in a train collision near Dhanbad in Bihar.
— The four-member trans Himalayan Expedition team arrives in New Delhi.
15 India and Nepal in their trade talks in Kathmandu agree to simplify procedural matters.
— K. M. Chandy sworn in as the Lt. Governor of Pondicherry.
16 Vijay Amritraj declared the winner of the $ 2,00,000 International Tennis tournament in Kolee, Japan.
— Railways win the national women's Hockey Championship defeating Punjab 3—0 at Kozhikode, Kerala.
17 Indian and Chinese delegations begin their talks on bilateral relations in New Delhi.
— India and Afghanistan sign a protocol in Kabul to step up Indian assistance to Afghanistan in technical and economic fields.
18 The highest Dutch award, Commander in the Order of the Golden Ark is conferred on Indira Gandhi for her outstanding work in environmental conservation.
— India and Nepal sign on agreement in New Delhi to improve trade and transit facilities.
19 Heavy polling is reported in the elections to the 4 state assemblies and bye-elections to 15 assembly seats and 7 Lok Sabha seats.
— The Soviet Union agrees to supply 25 lakh tonnes of crude oil to India.
20 The United Democratic Front is voted to power in Kerala by securing 77 seats in the 140-member House.
— Congress (I) bags both the Parliamentary seats in Rajasthan.
— India and China to meet again to discuss the boundary question. They agree to exchange cultural troupes.
— The Public Sector records a net profit of Rs 400 crore in 1981-82.
21 The Chairman of Palestine Liberation Organisation Yasser Arafat arrives in New Delhi on a two-day visit.
— Congress (I) emerges as the single largest party in Haryana.
— Bharatiya Janata Party wins 2 Lok Sabha seats in Thane, Maharashtra and in Jabalpur, Madhya Pradesh while the Lohardaga, Bihar seat goes to the Congress (I).
22 Hemvati Nandan Bahuguna retains the Garhwal Lok Sabha seat in the bye-election.
— K. Karunakaran elected leader of the United Democratic Front in Kerala.
— CPI (M) secures more than a two-third majority in the West Bengal Assembly elections. Jyoti Basu re-elected leader of the Left Front.

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— India and Saudi Arabia sign a long term oil pact in New Delhi for the supply of 20 lakh tonnes of crude to India.
— The Minister for External Affairs leaves New Delhi for Dhaka on a two-day official visit.
23 Bhajan Lal sworn in as the Chief Minister of Haryana.
— Yasser Arafat appreciates India's efforts to promote friendly relations with Pakistan in a joint communique issued in New Delhi.
— An Indo-Bangladesh joint economic commission is to be set up to develop further economic and technical cooperation.
— President Neelam Sanjiva Reddy inaugurates a four-day International Food Conference in Bangalore.
— Centre approves the Rs 59. 2 crore Nhava-Sheva port project near Bombay.
— Twenty-seven persons feared killed in a boat tragedy in the Godavari in Andhra Pradesh.
24 Ram Lal sworn in as the Chief Minister of Himachal Pradesh.
— India is to receive a loan of $ 190 million from the International Bank for Reconstruction and Development (IBRD) for the Agricultural Refinance and Development Corporation (ARDC).
— The Prime Minister lays the foundation stone of the Nehru Planetarium at Teen Murti House in New Delhi.
— A 19-member United Democratic Front Ministry headed by K. Karunakaran takes over office in Kerala.
— A new HMT watch factory inaugurated at Tumkur in Karnataka.
25 President Hammer de Rouburt of Nauru arrives in New Delhi on a week's official visit to India.
— The Minister for External Affairs arrives in Sofia on a three-day visit to Bulgaria.
— Supreme Court stays the demolition of huts of slum pavement dwellers in Bombay.
— India to supply one lakh tonnes of wheat to Bangladesh.
— Police detect twenty-six dynamite sticks in the New Delhi's underground market, Palika Bazaar supposedly planted by the members of the outlawed People's Liberation Army of Manipur.
26 Jyoti Basu sworn in as the Chief Minister of West Bengal with four Cabinet Ministers.
— India and Nauru sign an agreement in New Delhi to set up a joint fertilizer plant at Paradip in Orissa.
— Prices of various varieties of coal increased by Rs 18 a tonne.
— The Prime Minister holds talks with CPI and CPM leaders on communal and secessionist activities in the Punjab.
27 The ruler of Sharjah, Sheikh Sultan Bin Mohammed Qassimi arrives in New Delhi on a 12-day state visit to India.
— An 18-member Council of Ministers for Haryana is sworn in at Chandigarh.
28 Two more ministers inducted in Haryana Cabinet.
— India and the Soviet Union sign a protocol on the working programme of the country's first experimental magnets—hydro-dynamic power plant at Tiruchirapalli, Tamil Nadu.

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— The Chief Election Commissioner suggests measures against political defections.

29 A white paper issued by the Jammu and Kashmir Government says that Gilgit and the northern areas are inalienable parts of the state.

— An 80-member state level National Integration Council is formed in Punjab to promote communal harmony.

30 The portfolios of Bihar ministers reshuffled; one minister dropped.

June

1 India and Pakistan decide to resume talks for durable peace in the sub-continent.

— The new Social Security Certificate scheme launched.

— The foundation of the Pondicherry airport laid at Kalpeth.

2 Thirty-seven new members are sworn in at Calcutta bringing the total strength of ministers in the Left Front Government to 42.

— A 16-member ministry headed by Ram Lal assumes office in Himachal Pradesh

— President Neelam Sanjiva Reddy arrives in Srinagar on a three-day visit.

3 Eight persons feared killed in a train collision near Madras.

— The World Bank announces a loan worth $ 304·5 million for rural electrification schemes in fourteen states.

— Centre announces the drug policy to stimulate the growth of production by 25 per cent.

4 Mustapha Al Marzook, the First Secretary in the Kuwait Embassy shot dead in his New Delhi house by unknown persons.

— About 110 persons are reported killed in a devastating cyclone that swept the Orissa coast.

— The Supreme Court dismisses the writ petition against the Governor of Haryana in inviting Bhajan Lal to form the Government.

5 Production of crude at Bombay High touches an all-time record of 2,51,000 barrels a day.

— India urges the non-aligned countries to support the call for a UN Conference on turning the Indian Ocean into a Zone of Peace.

6 D. Devraj Urs, 67, a former Chief Minister of Karnataka dies in Bangalore.

— Twenty-nine jawans are reported killed and several other reported injured when an avalanche strikes their camp in north Sikkim.

7 India condemns the unprovoked Israeli aggression on Lebanon.

— All India Radio begins broadcasting news and programmes through the satellite INSAT-1A.

— Oil and gas struck in a third well off Bombay High.

— The Reserve Bank relaxes the credit policy to help meet seasonal credit demands.

8 Radha Raman, 78, a former Chief Executive Councillor of Delhi, dies in New Delhi.

— Junior doctors observe a day's token strike all over the country.

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9 Eighteen persons are reported killed in a bomb explosion in Guwahati.

10 India sends a medical team to Lebanon.

— A Division Bench of the Bombay High Court dismisses a joint appeal by the Maharashtra Government and the former Chief Minister A. R. Antulay on Justice Lentin's verdict in the cement case.

Ragging is banned in all educational and professional institutions.

— Fifteen persons feared killed in floods at Udipi in Karnataka.

11 The Prime Minister after visiting cyclone-hit areas of Orissa, announces central aid of Rs 5 crore.

— Two judges of the Bombay High Court resign from the Pratibha Pratishthan Trust set up by A. R. Antulay following High Court's verdict.

Mirza Afzal Beg, 75, the former Deputy Chief Minister of Jammu and Kashmīr, dies in Srinagar.

12 The Chief of the Naval Staff says that India will build sophisticated submarines in collaboration with the Federal Republic of Germany.

13 Holland retains the Champions Cup for Hockey at Amsterdam defeating Pakistan 7—2. India loses to Australia and finishes third.

15 Agitation leaders in Assam observe a 24-hour *bandh*.

England beats India by 7 wickets in the first Cricket Test match at Lords.

— Centre approves three space projects.

— A big fire destroys a massive warehouse in Bombay.

16 Justice A. N. Grover renominated Chairman of the Press Council of India for a three-year term.

— A member of the ruling People's Conference in the Mizoram Assembly shot dead by a member of the outlawed Mizoram National Front.

— Dr. Manmohan Singh becomes the Governor of the Reserve Bank.

17 Dacoit Malkhan Singh and 19 members of his gang surrender at Bhind, Madhya Pradesh.

18 Sixteen persons feared killed in a fire in a village near Kanpur.

— The Mizoram Chief Minister Brig. Sailo appeals to the extremists to give up violence and killings.

— R. K. Trivedi takes over as the new Chief Election Commissioner.

— India's Raj Kumar wins a gold medal in the 5,000 metre race in Beijing's athletics tournament.

19 A task force formed by the Ministry of Commerce suggests a scheme of cash assistance to export-oriented units.

20 Twelve persons feared killed and several others injured when eight coaches of the Assam Mail derail between Narayanpur and Bilpur stations.

— The Soviet Union to give Rs 96 crore credit to India for coal projects.

21 The Eighth Finance Commission is constituted with Y. B. Chavan as Chairman.

— M. R. Sivarama Krishna becomes the new ambassador to China.

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22 Zail Singh files nomination papers for Presidentship.
— H. R. Khanna, a former Judge of the Supreme Court, is nominated as Presidential candidate by the opposition parties.
— Nineteen persons are feared killed when an Air India Boeing-707 crashes at Bombay airport while landing.
— India and the Soviet Union sign an agreement on the setting up of Vindhyachal Super Thermal Power Station in Maharashtra.
23 The Vice-President opens the International Conference on Deep Sea-fishing in New Delhi.
— A seven-member Indian Parliamentary delegation led by the Lok Sabha Speaker arrives in Bonn, West Germany.
— Prof. Rais Ahmed is appointed Vice-Chairman of the University Grants Commission.
— The Prime Minister arrives at Srinagar on a three-day visit.
— The Maharashtra Chief Minister escapes an attempt on his life at Bombay.
26 An Indo-Bangla ministerial meeting on the sharing of Ganga waters at Farakka begins in New Delhi.
27 General K. V. Krishnarao, the Chief of the Army Staff, arrives in Moscow.
— Hira Lal, 72, a noted film actor dies in Bombay.
— Centre constitutes a high-power 54-member National Council for Science and Technology Communication.
— Russi Billimoria is appointed part-time Chairman of the Indian Airlines.
— India bags 18 awards in international philatelic exhibition in Paris.
28 Uttar Pradesh Chief Minister V. P. Singh resigns following the massacre of 17 villagers in Kanpur and Mainpuri districts by dacoits.
— The second cricket test between India and England at Old Trafford ends in a draw.
30 A Sri Lanka citizen hijacks Alitalia plane from Delhi enroute to Rome.

July

1 Centre announces a scheme to convert overdrafts by states into medium and long-term loans.
— India and Iraq agree on a cultural exchange programme in the fields of education, mass media and tourism.
2 The Central Statistical Organisation reports that the overall industrial growth in 1981-82 was 8·2 per cent double than that of 1980-81.
3 Centre fixes the selling price of colour TV set at Rs 7,500.
5 Dr. Y. Nayudama is appointed the Governor of the International Development Research Centre at Ottawa.
— Pakistan to release 10 Indians detained without trial.
— Bharat Vyas, 65, a noted film lyricist, dies in Bombay.
6 The country's longest rail tunnel between Khandala and Monkey Hill on the Bombay-Pune line opens to traffic.
7 Centre announces the advertisement policy to help small and medium newspapers.
— The country's largest single stream Ammonia-urea Plant at Narmadanagar in Gujarat goes into operation.
8 The five-week monsoon session of Parliament begins.

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— Sarla Behn, 82, a close associate of Mahatma Gandhi, dies in Almora.
— The Israeli Consul in Bombay declared *persona non-grata* and ordered to leave the country within 48 hours.
— A three-point plan of action to help scheduled castes announced in Lok Sabha.
10 A set of incentives to non-resident Indians to invest in Indian companies announced.
12 A near cent per cent polling is recorded in the seventh Presidential election.
— An IAS officer is shot dead in Imphal in Manipur.
13 The third and final cricket match between England and India ends in a draw at Oval in England.
14 The Chairman of the Rajya Sabha rejects the opposition's plea to serve a notice on the Prime Minister regarding a breach of privilege.
— The Lok Sabha passes the Constitution (46th Amendment) Bill which seeks to tap loopholes in the Central Sales Tax Act.
— The Minister for External Affairs leaves New Delhi for Nicosia to attend the non-aligned coordination meeting on the crisis in Lebanon.
15 Zail Singh elected as the seventh President of India, defeating his only rival, H. R. Khanna, by a margin of over four lakh seventy-one thousand votes.
— The Lok Sabha Speaker rejects privilege motion initiated by the opposition on the purchase of petroleum products from a Hong Kong firm.
16 Centre is to set up family courts to deal with dowry deaths and crimes against women.
— About hundred coal miners are reported killed following the collapse of the roof of the Toppa colliery in Hazaribagh district of Bihar.
— A Development Council for cement industry is constituted.
18 Sripat Mishra unanimously elected leader of the Congress (I) Legislature Party in Uttar Pradesh.
— Centre debars 28 political organisations from accepting foreign contributions.
— Ramesh Krishnan wins the Stuttgart Grand Prix Tennis Tournament defeating Saudy Mayer of the United States.
19 A new 26-member Council of Ministers headed by Sripat Mishra assumes office in Uttar Pradesh.
— Dale P. Morsch, 50, Chief of the South Asian Bureau of the United Press International in India found dead in his New Delhi house.
— Dr. Amrik Singh Cheema, 64, a renowned agricultural scientist, dies in Tanzania.
20 Ten Indian nationals held in Pakistani jails arrive in New Delhi.
— Mira Behn, 90, a disciple of Mahatma Gandhi, dies in Vienna.
21 The Lok Dal President suspends Devi Lal, the Haryana leader from the primary membership of the party.
— President Neelam Sanjiva Reddy is presented with the scrol of honour at a farewell function organised by Members of Parliament in New Delhi.

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— The Supreme Court directs the Maharashtra Government and the Bombay Municipal Corporation to give a 72-hour notice, before carrying out demolitions of hutments.
— Members of the opposition place the verbatim report of the sittings of the Committee of Public Undertakings, relating to a controversial oil deal on the table of the Rajya Sabha.
22 The Prime Minister said that the Government is willing to resume talks with Akali leaders on the Punjab situation.
24 The outgoing President Neelam Sanjiva Reddy broadcasts to the nation.
— A national welfare fund is set up for the benefit of sportsmen.
25 Zail Singh assumes office as the seventh President of India.
— A National Water Development Agency is set up to undertake surveys and investigations for the development of peninsular rivers.
26 Centre announces the issue price of wheat at Rs 160 per quintal.
27 The Prime Minister leaves New Delhi on a nine-day visit to the United States.
— Parliament passes bills authorising the use of the eyes, the ear drums, and the ear bones of deceased persons for therapeutic purposes.
— Six states set up special courts to deal with economic offences.
28 The Prime Minister arrives in New York.
— Six West Bengal ministers resign on the issue of allocation of portfolios.
— In Manipur, three ministers dismissed from the Cabinet.
29 The Prime Minister and the US President begin wide-ranging discussion on global and regional issues.
— The Maharashtra Governor sanctions the prosecution of A. R. Antulay.
— Devi Lal expelled from the Lok Dal. Three party secretaries resign.
— Sohan Singh Josh, 87, a veteran communist leader, dies in Amritsar.
30 The US President and the Prime Minister acknowledge that the Indo-US talks have led to a better understanding between the two countries.
31 The Prime Minister in her address to the National Press Club in Washington says that India is not seeking military aid from the United States.
— Manibhai Bhikambhai Desai, a noted social worker, gets the Ramon Magsaysay Award for 1982 for public services.
— The Bihar Assembly passes a bill declaring the publication of scurrilous material a cognizable offence.

August

1 India and Bangladesh sign a protocol in Dhaka on inland water transit and trade.
— Gas flows from oil-well in the Bombay High following a blow out.
— The Prime Minister called upon Indian scientists and businessmen in USA to work for closer cooperation between the two countries.
— The Press Council of India seeks comments of the Bihar Government on reports about the move to restrain newspapers.

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— Stations of All India Radio linked through INSAT-IA for relay of programmes.

2 U Thant Award for promoting cultural understanding between the East and West is conferred on Indira Gandhi at a ceremony in New York.

— Parliament passes the bill to amend further the Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act.

— India and France sign a memorandum of understanding for closer cooperation in telecommunications.

3 A task force is constituted to study problems of the North-Eastern Region.

4 An abortive attempt is made to hijack an Indian Airlines plane, as the plane lands safely in Amritsar.

— The Ramon Magsaysay award for community leadership goes to Chandi Prasad Bhatt, an environmentalist and Chipko movement leader.

— The Prime Minister arrives in Honolulu.

— Tribhuvan Narain Singh, 78, a veteran freedom fighter dies in Varanasi.

5 The Prime Minister arrives in Tokyo.

— The fire at the exploratory well at Bombay subsides automatically.

— Godey Murahari, 56, a former Deputy Speaker of the Lok Sabha, dies in New Delhi.

— The Lok Dal Parliamentary Party splits with the removal of George Fernandes and Ram Bilas Paswan from the posts of Deputy Leader and Chief Whip by party's general body.

6 The Prime Minister returns to New Delhi after nine-day visit to USA and Japan.

— Dr. S. K. Pottekkat, 70, a noted Malayalam writer and Jnanpith award winner, dies in Kozhikode.

— Leaders of opposition parties in Parliament except Communist Party and Muslim League boycott the meeting convened by the Government to discuss foreign national issue in Assam.

— A National Advisory Council is set up to assess periodically the working of public distribution system.

7 At the first session of the seven-nation Foreign Secretaries Conference in Islamabad, India calls for closer cooperation among South Asian nations in trade, tourism and culture.

— French Foreign Minister Claude Cheyeson arrives in New Delhi on a day's visit.

— The Lok Sabha is assured that the Centre will make a judicious assessment of the Bihar Press Bill.

8 France is to supply nuclear fuel for the Tarapur Reactor at the earliest, announces French Foreign Minister in New Delhi.

— Iraqi Foreign Minister Dr Sadaum Hammadi arrives in New Delhi.

— The Prime Minister visits Bombay to see the ailing film star, Amitabh Bachchan.

9 Karpoori Thakur is elected President of the breakaway group of Lok Dal. George Fernandes is the General Secretary.

— The Lok Sabha passes the Industrial Disputes Amendment Bill.

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— Bhagwat Saran Upadhyaya, 73, an eminent historian and India's High Commissioner in Mauritius, dies in Port Louis.
— Government decides to resume the tripartite talks on foreign nationals' issue in Assam on 25 August.
— India and Japan sign a protocol for joint ventures in third countries.

10 A high level Iranian delegation arrives in New Delhi on a seven-day visit to India.
— The Minister for Information and Broadcasting says in Lok Sabha that the Government is committed to safeguard the freedom of the press.
— The Lok Sabha passes the bill making significant changes in the Motor Vehicles Act, 1939.
— A Bill to provide Rs 15,000 in compensation to road accident victims introduced in the Lok Sabha.

11 India formally agrees to host the seventh summit of Non-aligned Heads of State and Government if all the countries vote for it.
— The Prime Minister informs the Lok Sabha that no additional condition has been attached to get nuclear fuel from France and India reserves the right to reprocess the nuclear spent fuel.
— Parliament passes a bill to amend the Payment of Wages Act.
— Delhi journalists hold a rally against Bihar Press Bill.
— The Rajya Sabha passes the Industrial Disputes (Amendment) Bill.

12 Mongolian Foreign Minister Mangalyn Dagyal Tsering arrives in New Delhi on a four-day visit.
— The Indo-Pak official level talks conclude in Islamabad.
— India urges the UN Committee on Disarmament to draft treaty for banning nuclear tests.
— Arun Shourie, a noted journalist, bags the 1982 Ramon Magsaysay award for journalism, literature and communication arts.

13 The Foreign Secretaries of India and Pakistan describe the Islamabad talks as most useful and constructive.
— Air Chief Marshal, Pratap Chand Lal, 66, a former Chief of the Air Staff, dies in London.
— A tripartite committee headed by a former Chief Justice of Bombay High Court is appointed to look into the problems of textile industry.

14 In a broadcast, President Zail Singh calls upon the people to fight communalism, casteism and regionalism and increase production with hard work and discipline.
— Soviet Vice-President S. N. Imashev arrives in New Delhi on a 12-day visit.
— India and Mongolia sign two protocols in New Delhi for cooperation in the fields of agricultural research and health.
— A Liquified Petroleum Gas Plant is commissioned at Duliajan in Assam.

15 In a broadcast to the nation, the Prime Minister calls upon the people to revive the spirit of unity, shown in times of crisis.
— The first phase of the National and Rural INSAT television service begins.
— Delhi's first Electric Multiple Unit train, flagged off.

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16 The Lok Sabha rejects an opposition motion of no confidence against the Government by voice vote; the House adjourns *sine die*.
— Iran seeks India's help for her atomic power programme, says Speaker of the Iranian Parliament in New Delhi.
— The Bihar Governor refers the controversial Press Bill to amend the Indian Penal Code for the consideration of the President.
— Kanhaiya Lal, 72, a veteran film character actor, dies in New Delhi.
17 Centre approves Rs 269 crore Maruti small car project.
— The World Bank commends India's efforts to finance its investments through savings.
— Fr. Camille Bulcke, 73, a Belgian missionary settled in India and a renowned Hindi scholar, dies in New Delhi.
— The Prime Minister underlines the need for preservation of forests to maintain ecological balance.
18 In Bombay, the Army assists the civil authorities in controlling the situation following revolt by a section of policemen.
— The Indo-Bulgarian joint commission begins its discussion in Sophia on expansion of trade and industrial cooperation.
— The University Grants Commission selects eleven scientists for the Hari Om Ashram Trust awards for 1979 and 1980.
19 The Planning Commission reviews the implementation of Sixth Plan schemes.
— Dr. M. K. V. Bappu, 55, a renowned astronomer, dies at Munich.
— The Supreme Court suspends the operation of Tamil Nadu Act which made grossly indecent and scurrilous writing a cognizable, non-bailable offence.
20 The hijacker of the Indian Airlines plane shot dead at Amritsar and all the 69 passengers and crew members freed.
— The Punjab Chief Minister escapes unhurt in an attack on his life at a function near Jalandhar.
21 India buys 25 lakh tonnes of wheat from USA.
— The new High Commissioner of Bangladesh, Air Vice-Marshal A. K. Khandkar, presents his credentials in New Delhi.
— In Patna, many journalists are hurt in a lathi charge while in a procession demonstrating against Bihar Press Bill.
22 Fifteen thousand sales outlets are to be opened in 1982 to sell fertilizer in interior areas.
— The President arrives in Madras on a four-day visit to Tamil Nadu.
— Ek Nath Ranade, 68, the builder of Vivekananda Rock Memorial at Kanya Kumari, dies in Madras.
23 The Prime Minister leaves New Delhi on a five-day visit to Mauritius and Mozambique; arrives in Port Louis.
— Dr. Farooq Abdullah sworn in as a Minister in Jammu and Kashmir.
— Dr. Ram Prasad Tripathi, 96, a renowned historian, dies in London.
— In Bihar, the twelve-hour Patna *bandh* organised by five opposition parties ends peacefully.
— Gokulbhai Bhatt of Jaipur, Prem Bhai of Banvasi Seva Ashram, Uttar Pradesh and Smt. Taraben Mashruwala get the Jamnalal Bajaj awards for 1982.

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— The Central Advisory Council of Industry decides to set up productivity boards in each industry to improve their performance.

24 India protests to Pakistan over the signing of a protocol with China on Khunjerab Pass on the Karakoram Highway.

— In Haryana, 293 policemen sacked for indiscipline.

25 The tripartite talks between the government, the Assam agitation leaders and representatives of five opposition parties begin in New Delhi.

— The Prime Minister arrives in Mozambique on a three-day visit.

— The Chief Election Commissioner R. K. Trivedi in his first press conference speaks about the package of electoral reforms submitted to the Government.

— In a joint communique Prime Minister Indira Gandhi and Prime Minister Aneerud Jugnauth of Mauritius calls for the speedy implementation of the declaration making the Indian Ocean a Zone of Peace.

26 Centre announces the transfer of Lt. Governor of Delhi, S. L. Khurana, as Governor of Tamil Nadu and Jagmohan as Lt. Governor of Delhi.

— Prof. Susobhan Chandra Sarkar, 82, a noted historian, dies in Calcutta.

— Centre and the Assam movement leaders agree to consider a new formula to resolve foreign nationals' issue.

— Justice D. P. Madan appointed Chief Justice of Bombay High Court.

— The President inaugurates India's first open university at Nagarjunasagar in Andhra Pradesh.

— The Prime Minister returns to Delhi after a five-day visit to Mauritius and Mozambique.

27 Pakistan and China open to traffic the Khunjerab Pass on the Karakoram Highway in Pakistan-occupied Kashmir despite Indian protest.

— Japanese Foreign Minister Yoshio Sakurauchi arrives in New Delhi on a three-day visit to India, accompanied by a 20-member delegation.

— Maa Anandamayee, 87, a spiritual leader, dies in Dehra Dun.

28 India and Japan sign an agreement in New Delhi under which Japan will give concessional loan worth over Rs 120 crore for four projects.

— The meeting of the Indo-Bangladesh joint river commission begins in Dhaka.

29 India and Iran sign a memorandum of understanding in Tehran for more cooperation in trade and industry.

— The National Committee on Environmental Planning recommends reorientation of the existing forest policy.

— The Agricultural Prices Commission recommends the procurement price of paddy at Rs 122 per quintal.

30 The INSAT-1A satellite stops sending weather data following development of another snag in its meteorological payload.

— Assembly elections in Nagaland to be held on 10 November.

31 Dr. Gopal Swarup Pathak, a former Vice-President, dies in New Delhi.

— Centre accepts Pillai Committee recommendations for rationalisation of wage structure of bank officers.

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— In Andhra Pradesh, the first unit of Srisailam Hydro-electric project is commissioned.

September

1 The Prime Minister lays the foundation stone of the Sanjay Gandhi Hospital at Mughinganj near Amethi in Uttar Pradesh.
— Centre relaxes the eligibility conditions for importing colour TV components.
— The Essential Commodities (Special Provision) Act comes into force.
— Devastating flood causes heavy loss of life and crops in Madhya Pradesh, Orissa and Uttar Pradesh.
— The meeting of the Indo-Czechoslovak joint committee on economic, trade and technical co-operation begins in Prague.
2 In a reshuffle of the Union Council of Ministers, Prakash Chand Sethi gets Home, Vasant Sathe takes over Petroleum and Abdul Ghani Khan Choudhry gets Railways, N. K. P. Salve is the new Minister for Information and Broadcasting. Five more Ministers of State are inducted. Buta Singh to head new Department of Sports.
— Jagmohan is sworn in as Lt. Governor of Delhi.
— The Congress (I) President reconstitutes the Working Committee and the Central Parliamentary Board.
3 S. L. Khurana is sworn in as the Governor of Tamil Nadu.
— Journalists and non-journalists employees of newspapers all over the country observe one-day token strike against Bihar Press Bill.
— Indane cooking gas is to cost less throughout the country according to a spokesman of Indian Oil Corportaion.
— President Zail Singh inaugurates the building of Harmilap Mission Government Hospital near Hardwar.
— Centre announces the revision of pay scales of primary school teachers.
— Sixty-two persons are reported killed in a liquor tragedy in Cochin. A judicial inquiry is ordered by Kerala Government.
— Baburao Patel, 78, a veteran film journalist and a former member of Parliament, dies in Bombay.
4 Centre launches the national campaign for universalisation of elementary education.
— The President awards the Sarvottam Jeevan Raksha Padak to late Sister Layola, Mother Superior of St. Teresa's Carmolite Convent in Alleppey district of Kerala.
5 Dr. Yoginder K. Alagh is appointed Chairman of the Agricultural Prices Commission.
6 Multi-purpose Indian satellite INSAT-1A abandoned in space following total depletion of its fuel supply.
— The Prime Minister arrives in Srinagar and visits the ailing Chief Minister Sheikh Mohammed Abdullah.
— India and Czechoslovakia sign a protocol for economic and trade cooperation.
7 The public sector National Building Construction Corporation bags the Rs 63 crore railway project in Iraq.
— India and the Soviet Union are to expand collaboration in irrigation, says the Minister for Irrigation, Kedar Pandey in Moscow.

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8 Sheikh Mohammed Abdullah, 77, Chief Minister of Jammu and Kashmir and a veteran freedom fighter, dies in Srinagar. Eleven days mourning declared in the state.
— Dr. Farooq Abdullah sworn in as acting Chief Minister of Jammu and Kashmir.
— Tripartite talks on the foreign nationals' issue in Assam adjourn in New Delhi. To be resumed on 28 September.
— Talks between India and France on the supply of nuclear fuel for Tarapur plant end in New Delhi, with the two sides deciding to report to their Governments.
— The International Development Association describes India's economic performance as impressive.
9 The Prime Minister makes an aerial survey of the flood hit areas of Uttar Pradesh, Bihar and Orissa.
— The President and the Prime Minister fly to Srinagar to attend the funeral of Sheikh Mohammed Abdullah.
— In Madhya Pradesh, an ordinance is issued prescribing death penalty for those dealing with spurious liquor.
10 India and Hungary sign a protocol in Budapest to cooperate in the fields of medicine and public health.
— In Bihar, the 12-hour *bandh* call given by opposition parties passes off peacefully.
11 The Prime Minister inducts Mohsina Kidwai in the Council of Ministers as Minister of State for Labour and Rehabilitation. She was sworn in alongwith four other ministers.
— Dr. Farooq Abdullah unanimously elected leader of the ruling National Conference Legislature Party in Srinagar.
— President Zail Singh arrives in Trivandrum on a four day visit to Kerala.
12 India and the Soviet Union sign a protocol in Moscow on cooperation in irrigation and water conservation.
— The President opens the silver jubilee celebrations of the Kerala Assembly.
— Thirtyfour persons are reported killed and 20 injured when a passenger train hits a bus at a level crossing near Amritsar.
— Prakash Padukone wins the men's singles title of the Hong Kong Open Badminton Championships defeating China's Chen Tieulong.
— Nine-day National Trial Games for Asiad begin in New Delhi.
13 India is to assist Pakistan in setting up two milk dairy centres under a World Bank project.
— Police personnel in Maharashtra are to get more benefits from October 1982.
14 First ONGC owned drill ship *Sagar Prabhat* spudded a new well R-8-1 near Ratnagiri, off the Konkan coast in Maharashtra.
— In Jammu and Kashmir, a 10-member cabinet headed by Dr. Farooq Abdullah is sworn in.
15 India condemns the incident in which President-elect of Lebanon, Bashir Gemayel was killed in a bomb blast.
— Best film award in the Asian Film Festival in Malayasia goes to the Malayalam film, *Oridathoru Phayal lawan*.
16 K. Vijaya Bhaskara Reddy is unanimously elected leader of Andhra Pradesh Congress (I) Legislature Party.
— Dr. Manmohan Singh becomes Governor of the Reserve Bank.

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— Centre extends the suspension of the Delhi Metropolitan Council for another six months.
— The President of Congress (I) Party announces the time table for organisational elections.

17 India and the Soviet Union sign a protocol in Moscow for a new programme of cooperation in science and technology for 1984-87.
— A two-day National Labour Conference opens in New Delhi with a call for settling all labour issues through negotiations. Eight opposition trade unions boycotted the conference on alleged anti-labour policies of the Government.
— Cuba informs India that a consensus among non-aligned countries has been reached on holding the seventh non-aligned summit in New Delhi.
— D. C. Kothari, vice-president of the Indian Standards Institute, is elected president of the International Organisation for Standardisation at Toronto, Canada.
— Indira Chitnis, 72, a noted Marathi actress dies at Pune.
— Centre receives a dividend of Rs 20·37 crore from ONGC for 1980-81, the highest paid by any public sector undertaking.

18 The National Labour Conference concludes after unanimously suggesting sweeping changes in industrial relations.
— The Archaeological Survey of India opens a new Museum at Taj complex in Agra.
— The Prime Minister makes an aerial survey of flood affected areas in Uttar Pradesh.
— The Kerala Government disbands Justice Sadasivam Commission appointed in April 1981 to enquire into the spirit scandal.
— The International Conference of Jurists at New Delhi describes the military base in Diego Garcia as a threat to the countries in the Indian Ocean.

20 Prime Minister Indira Gandhi announces that two test pilots of the IAF, Wing Commander R. Malhotra and Squadron Leader R. Sharma have been selected for a joint Indo-Soviet space flight.
— The Prime Minister leaves New Delhi for Moscow on a seven day visit to the Soviet Union.
— In Andhra Pradesh, a new 26-member ministry headed by K. V. Bhaskara Reddy assumes office in Hyderabad.
— India strongly condemns the massacre of Palestinians in Beirut on 18 September.
— West Bengal's longest road bridge over the Subarnarekha at Gopiballarpur in Midnapore district opens to traffic. The bridge is named after three tribal martyrs Sidhu, Kanu and Birsa.

21 Prime Minister Indira Gandhi and the Soviet President Leonid Brezhnev sign a joint declaration in Moscow,
— Centre announces the sites for five of the six gas-based fertilizers units to be set up in Uttar Pradesh and Madhya Pradesh.
— Sadanand Rege, 59, a noted Marathi poet, dies in Bombay.

22 Prime Minister Indira Gandhi attends the ceremony in which one of the busy centres of Moscow was rechristened Nehru Ploshed or Nehru Square. This is the first time that Muscovites had dedicated a place in the memory of a non-communist statesman.

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22 The first cricket test between India and Sri Lanka ends in a draw at Madras.
— The Uttar Pradesh Government writes off Rs 120 crore long term loans due from municipalities.
23 The President nominates Maragathem Chandrasekhar, Madan Bhatia, Hayatullah Ansari and U. N. Tiwari as members of the Rajya Sabha to represent special interests.
— The Jammu and Kashmir Governor returns the Resettlement Bill to state legislature for reconsideration.
— The Planning Commission issues fresh guidelines to states to lay emphasis on the Revised 20-Point Programme while formulating Annual Plans for 1983-84.
— The Prime Minister visits the Star city—the Soviet establishment for the training of cosmonauts.
24 The Prime Minister arrives in Kiev.
— India and Nepal sign an agreement in New Delhi to form a joint industrial committee to promote industrial relations.
— A task force of the Ministry of Commerce recommends the creation of an autonomous free trade zone authority.
25 The Post and Telegraph employees are to get 22-days wages as productivity linked bonus.
— Prime Minister Indira Gandhi receives an honorary degree of doctorate by Kiev State University. At a seperate function, she is made honorary citizen of Kiev, the only other after Leonid Brezhnev.
— The Food Corporation of India and Nepal sign an agreement in New Delhi for supply of 10,000 tonnes of rice to Nepal.
26 Centre increases the minimum wages for workers engaged in 27 categories of mines covered under the Minimum Wages Act.
— The Prime Minister returns home after a week's visit to the Soviet Union.
— N. K. P. Salve is unanimously elected President of the Board of Control for Cricket in India
— Nirode Mazumdar, 66, an eminent artist dies in Calcutta.
— The Chief of the Army Staff, General K. V. Krishna Rao returns to New Delhi after a two day official visit to Bhutan.
27 The Vice President opens the Asian Advertising Congress in New Delhi.
— Balkrishnabuwa Kapileswari, 86, a well-known vocalist dies in Bombay.
— Disastrous fire breaks out at well no. 15 in the Dabka oil and gas field near Vadodara.
29 Twenty two school children of Patiala are drowned when a ferry capsizes in Nangal lake.
— British Prime Minister Margaret Thatcher arrives in New Delhi for a brief stop-over.
— India's per capita defence expenditure is lowest in the world, according to figures released by the International Institute for Strategic Studies.
— The one-day fifth round of formal tripartite talks on Assam foreigners' issue adjourn.
30 President Zail Singh leaves New Delhi for the USA for a medical check-up at Texas Heart Institute, Houston.
— Railwaymen to get 31 days' productivity linked bonus for 1981-82.

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— An agreement on British assistance is signed in London with a consortium of British engineering firms for the construction of the 1,000 mw super-thermal power station at Rihand in Uttar Pradesh.

October

1 The Prime Minister suggests the establishment of a net-work of protected areas as part of the national wild life policy.
— Centre announces newsprint allocation policy for 1982.
— The Motor Vehicles' (Amendment) Act comes into force facilitating the payment of compensation to victims of accidents.
2 Maruti Udyog signs an agreement in New Delhi with the Suzuki Motor Company of Japan for the manufacture of small cars.
— Chintamani Dwarkanath Deshmukh, 87, a former Minister for Finance, dies in Hyderabad.
— The Gangtok Station of All India Radio is inaugurated.
4 The winter session of Parliament begins.
— Centre fixes the procurement price of common variety of paddy at Rs 122 a quintal for the 1982-83 season.
— Six leftist parties organise a peace march in New Delhi against the danger of nuclear war and in support of the struggle of the Palestinian people.
— The Prime Minister informs Lok Sabha that the President had decided to refer the Jammu and Kashmir Resettlement Bill to the Supreme Court for opinion.
— The Jammu and Kashmir Assembly and Council again pass the Resettlement Bill in the original form. The Chief Minister informs that the bill will not be implemented until the Supreme Court announces the decision.
6 The Governor of Jammu and Kashmir gives assent to the Resettlement Bill.
— President Zail Singh undergoes successfully an operation for coronary heart ailment at Houston.
— Vice-President M. Hidayatullah sworn in as acting President.
— The Madhya Pradesh Assembly rejects a no confidence motion against the Arjun Singh ministry.
— The Chief Martial Law Administrator of Bangladesh, Lt. General H. M. Ershad arrives in New Delhi on a two-day visit.
7 India and Bangladesh sign a memorandum of understanding in New Delhi on sharing of Ganga waters at Farakka.
— Oil and gas struck in the Gojalia structure in Tripura, announcement made in Rajya Sabha.
8 The Indian Air Force celebrates its golden jubilee with a thrilling air display in Delhi.
— The Social Welfare Ministers in New Delhi recommend the setting up of separate Directorates of Social Welfare in the states.
9 The 12th Commonwealth Games come to an end at Brisbane. India wins 5 gold, 8 silver and 3 bronze medals and is placed at the 6th position.
— Hari Vishnu Kamath, 75, a veteran freedom fighter and eminent parliamentarian, dies in Nagpur.
11 The Lok Sabha approves Drugs and Cosmetics (Amendment) Bill, 1982 providing stringent punishment to manufacturers of spurious and sub-standard drugs.

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— Centre allows import of colour TV sets as gifts from abroad.
— Violent Akali demonstration in New Delhi; four persons killed in police firing. Justice Yogeshwar Dayal appointed as one-man Commission to inquire into the happenings.
— The Indian feature film *Adharshila* wins a gold medal at Mannheim Film Festival, West Germany.
— The maiden flight of Ajeet, a two-seater supersonic trainer aircraft, manufactured by Hindustan Aeronautics Ltd., Bangalore, is successful.
— Haryana comes on the air map with the introduction of a tri-weekly Vayudoot hopper service between Delhi and Hissar.
12 J. R. D. Tata takes off from Bombay in a single engine Leopard Moth aircraft to Karachi to mark the 50th anniversary of the historic flight between the two points in 1932.
— The Election Commission suggests an amendment to make defection a ground for disqualification.
— The Maharashtra council of ministers expanded; 16 new ministers sworn-in.
— The Supreme Court admits a writ petition, challenging the validity of the Jammu and Kashmir Resettlement Bill and refuses stay of its operation.
— Hannut Singh, 82, an ace polo player, dies in Jodhpur.
13 The Madhya Pradesh council of ministers expanded; 9 new ministers inducted.
— Trambaklal Dave, 78, a veteran freedom fighter, dies in Ahmadabad.
— Karanjaksha Banerji, 72, an eminent Bengali poet, dies in Calcutta.
14 An entire market in south Calcutta with 74 shops destroyed in a big blaze.
— Acharya Jaikrishna Prabhudas Bhansali, 85, a close associate of Mahatma Gandhi, dies in Nagpur.
— H.N. Kumbare, 59, one of the leaders of the Republican Party and a former MP dies in Nagpur.
15 Civil aviation completes 50 years of its international operations.
— France agrees to supply 40 Mirage-2000 aircraft to India.
— Over seventy persons killed when a private bus falls in a branch of Bhakra Canal after colliding with another bus at Madhopur bridge on Sirhind—Patiala road in Punjab.
— The Rajasthan council of ministers expanded; ten new ministers inducted, two dropped.
— TamilNadu observes state wide *bandh* called by ruling AIADMK and opposition parties to press the Centre to persuade the Karnataka Government to ensure flow of water in the Cauvery.
— India's first electronic typewriter demonstrated in Bombay.
— The Prime Minister lays the foundation stone of a Rs 2 crore Rani Lakshmibai Museum at Jhansi.
— Payment of productivity linked bonus equivalent to 20 days of wages to the civilian workers in the defence production establishment for 1981-82 announced.
— Price of levy sugar raised by ten paise per kilogram.
16 In Rajasthan two more ministers are sworn in.
— Two-year old agitation in Ladakh on the question of grants and setting up of industries in the area is withdrawn following talks between action committee and Chief Minister Dr. Farooq Abdullah.

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17 Portfolios of Rajasthan ministers reshuffled.
18 Hari Om Ashram Trust awards presented to 21 scientists covering the period 1977-80.
— The Prime Minister calls upon the people to help in preserving the forest wealth.
— The West Bengal Chief Minister announces the decision to institute a judicial inquiry into the alleged role of the CPI(M) Minister Prasanta Sur in the Rs 3·5 crore earth filling contract.
19 Nineteen persons, including women and children, dead and 13 others were injured in a fire that completely gutted a cracker factory near Ahmadabad.
— The National Women's Sports Festival begins in New Delhi.
20 Parliament is informed that President's assent to Bihar Press Bill will be given only after a dialogue with the Press.
— Prof. Mukunda Mandal, 39, a CPI (M) member of the Lok Sabha dies in New Delhi.
— Announcement made in the Lok Sabha that a statutory Board will be set up to formulate, coordinate and enforce necessary development plans for the National Capital Region.
— Pakistan President Gen. Zia-ul-Haq revealed in Beijing that his country fought the 1971 war against India with military hardware mainly supplied by China.
21 The Prime Minister arrives in Dimapur on a three—day visit to Nagaland.
— Representatives of various journalist organisations march to Parliament to protest against the Bihar Press Bill.
22 In Sikkim, two ministers are dropped from the Cabinet.
— Parliament adjourns for 10-day recess.
— The World Bank announces a loan of $165·5 million for petroleum exploration project of ONGC.
— Centre increases the pension of freeedom fighters.
23 India and Bangladesh sign an inland water transit and trade protocol for sharing of inter-country trade through inland waters.
— A 22-member Indian delegation meets Chinese Prime Minister Ziao Ziang in Beijing.
24 Oil and gas is found at Razole in the Godavari on-shore basin.
— Poland is to supply four lakh tonnes of coal and one lakh tonnes of sulphur to India during the current year.
— B. D. Khobragade is re-elected President of Republican Party of India (K).
— The Eighth Women's National Sports Festival concludes in New Delhi.
25 The Reserve Bank liberalises the credit policy to boost production and export.
— Kumjurti Anjaneyulu, 59, a leading Telugu poet, dies in Hyderabad.
26 India signs a contract in Algiers to build two airports in Algeria.
27 Parthasarathy Ramachandran assumes office of the Governor of Kerala.
— Pyare Lal, 82, a former secretary to Mahatma Gandhi dies in New Delhi.
28 The Prime Minister leaves New Delhi for Hyderabad on a Three day visit to Andhra Pradesh.

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— Justice K. Bhimaiah sworn in as the Chief Justice of Karnataka High Court.
— Preliminary discussions on the state Annual Plans for 1983-84 begin in New Delhi.
29 The Prime Minister inaugurates the first 110 mw unit of the Srisailam hydro-electric project. She also dedicates to the nation the Rs 80 crore Godavari barrage project at Dowlaiswaram near Rajahmundry.
30 The Prime Minister inaugurates work on the second stage of the Vijayawada thermal power station at Ibrahimpatnam near Vijayawada to cost Rs 260 crore.
— The Goa bench of the Bombay High Court is inaugurated in Panaji.
— In Sikkim, two new ministers are sworn in.
31 President Zail Singh returns to New Delhi after undergoing heart surgery at Houston.

November

1 Pakistan President Zia-ul-Haq makes a stop-over in New Delhi on his way to Indonesia. Smt. Indira Gandhi and General Zia-ul-Haq have a one-hour meeting. Both agree to the establishment of an Indo-Pakistan joint commission.
— India International Trade Fair 1982 inaugurated in New Delhi.
— The Cambridge University is to have a Jawaharlal Nehru Professorship from October 1983.
2 India and Pakistan sign a protocol on exchange of information about and consular access to nationals in jails in the two countries.
— A national health policy is announced in Parliament.
— Officials of India and Pakistan to meet from 23 December to work out the modalities and details of the joint commission.
— Centre makes it clear that there is no proposal to appoint a Delimitation Commission.
— A Parliament Committee recommends stringent punishment for rape and physical assault on women.
— Soviet Land Nehru awards for 1982 are announced.
3 A Tourism policy statement is laid in Parliament.
4 A conference of the Chairmen of Regional Rural Banks begin in New Delhi.
— Sir Biren Mookerji, 83, the doyen among industrialists dies in Calcutta.
— The colloquim on the new law of the sea is inaugurated in New Delhi.
— Centre asks states to withdraw domicile restrictions imposed on registrations for jobs with employment exchanges.
— The Soviet Union is to supply 22·5 lakh tonnes of kerosene and high speed diesel oil to India under an agreement signed in New Delhi.
— The Jamnalal Bajaj award presented to three social workers in New Delhi
5 The Lok Sabha informed that a committee of ministers will examine the recommendations of the second Press Commission.
— The Prime Minister dedicates to the nation the newly formed National Bank for Agricultural and Rural Development.
— Parliament approves two bills providing for life imprisonment to hijackers.

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— A bill is introduced in the Lok Sabha to amend Articles 330 and 332 of the Constitution to provide reservation of seats in the Lok Sabha and state assemblies for scheduled tribes in some north-eastern states.
— The Lok Sabha is informed that the prototype of first Indian tank will be ready in 1983.
— The Lok Sabha adjourns *sine die*.
— The President appoints M. L. Kampani as the Lt. Governor of Andaman and Nicobar Islands.
— The World Health Organisation appoints Prof. V. Ramalingaswami as Chairman of Global Advisory Committee on Medical Research.
— The United Nations honours Romesh Chandra for his outstanding contribution in the cause of freedom and human-dignity in South Africa.
— Kenya's Jayant Shah wins the third Himalayan car rally.
— Ravi Kirloskar, 67, an industrialist dies at Kuala Lumpur.
6 India and Iran are to set up a joint commission to diversify cooperation in economic and other fields.
7 The four day conference of presiding officers of legislative bodies opens in Patna.
— Dinkar Desai, 74, a veteran trade union leader dies in Bombay.
8 A devastating cyclone hits Gujarat taking the lives of nearly 520 persons and rendering more than one lakh destitutes.
— Centre decides to maintain the statutory price for sugar cane at Rs 13 a quintal for the 1982-83 season.
— Air India employees to get 12·25 per cent bonus for 1981-82.
10 The Prime Minister makes an aerial survey of the cyclone affected areas of Gujarat.
— Polling takes place for election to Nagaland Assembly.
— The Andhra Pradesh council of ministers expanded.
— The Prime Minister calls on fasting Bhoodan leader Acharya Vinoba Bhave at Paunar Ashram.
— Raghu Raj, Chairman, Air India elected president of the International Air Transport Association for 1983.
— The 110-year old system of administration comes to an end in Andaman and Nicobar Islands when farewell was given to its last Chief Commissioner.
11 Prof. A.M. Khusro, becomes a member of the Planning Comission.
— Dr. Narayana Menon is the new Chairman of the Sangee Natak Akademi.
12 The Prime Minister lays the foundation stone of the first phase of 1,260 mw Vindhyachal super thermal power project.
— The Reserve Bank allows overseas Indians to repatriate the sale proceeds of their share without the permission of tax authorities.
— The Prime Minister dedicates to the nation the Rs 121 crore Malanjkhand copper project in Madhya Pradesh.
— India and Mexico sign an agreement to diversify and strengthen bilateral cooperation in various fields. The two countries also decide to set up a joint commission.
— India and the Soviet Union sign in New Delhi an agreement for the joint production of a documentary film on Jawaharlal Nehru.

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13 The public sector undertaking Modern Bakeries changes its name to Modern Food Industries (India) Ltd.
14 The Prime Minister inaugurates Nehru Stadium in New Delhi.
— Centre launches the polio vaccination campaign all over the country.
— The Festival of India ends in London.
— Kondaji Bassappa, 68, a former Union Deputy Minister dies in Bangalore.
— The Prime Minister leaves New Delhi for Moscow to attend the funeral of Soviet President Brezhnev.
15 Acharya Vinoba Bhave, 88, father of *Sarvodaya* and *Bhoodan* movements, dies at Paunar, Maharashtra.
16 Fourteen of the 20 low power TV centres of the country begin their telecast.
— India and USA discuss in New Delhi international and bilateral relations.
— The Soviet Land Nehru awards for 1982 are given to four Indian writers in New Delhi.
— The Prime Minister meets new Soviet leader Yuri Andropov in Moscow.
17 India and Bangladesh sign three agreements after the conclusion of first meeting of the joint economic commission in New Delhi.
— A seven-member Congress (I) Ministry headed by S. C. Jamir is sworn in at Kohima.
— Centre brings All India Radio and Doordarshan under the Essential Services Maintenance Act.
— In Kerala, the Congress (A) led by A.K. Antony decides to merge with Congress (I).
— The Asiad Cultural Centre in New Delhi, the biggest auditorium in the country, is inaugurated.
— Salahuddin Club of Iraq claims the Rovers Cup, by defeating Mohammedan Sporting of Calcutta 2-1 in the Soccer final in Bombay.
18 Under an agreement signed in New Delhi India is to receive an assistance of Rs 79·35 crore from France.
— India and the Soviet Union sign a protocol in New Delhi on scientific and technical cooperation in agriculture for 1982-83.
— The 1981 Jawaharlal Nehru award for International Understanding is presented to Mrs. Alva Myrdal and Dr. Gunnar Myrdal at Stockholm.
19 The President declares open the two-week Ninth Asian Games at the newly built Jawaharlal Nehru Stadium in New Delhi.
— The Prime Minister lits the torch at the National Stadium, where the first Asian Games were held.
— Doordarshan telecast the inaugural ceremony of Asiad in colour.
— Syed Abdur Rahim, 69, a legendary football player of the '30s dies in Calcutta.
21 K. P. S. Menon, 84, a diplomat par excellence, dies at Ottapalam, Kerala.
22 The Nagaland ministry is expanded.
— The portfolios of five Maharashtra ministers are reshuffled.
24 The Prime Minister arrives in Panaji on a day's visit to Goa.

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25 Eighty inventors receive the awards of the National Research Development Corporation at New Delhi.
— Gertrude Emerson Sen, 93, an eminent journalist and a historian dies at Almora.
26 India and France sign an agreement for the supply of nuclear fuel for the Tarapur atomic power plant.
— Andhra Pradesh, Karnataka and Tripura to go to the polls on 5 January 1983 to elect new state assemblies.
— The second 200 mw unit of the Singrauli super thermal power station is commissioned.
27 French President Francois Mitterrand arrives in New Delhi on a four day visit to India.
— A new scheme of excise concession for increased production during 1982-83 is announced.
— The nine day All India Kalidas Silver Jubilee celebrations start in Ujjain, Madhya Pradesh.
29 The French President rejects the suggestion that there is a link between his government's decision to supply nuclear fuel for the Tarapur atomic power plant with sale of arms to India.
— Promode Das Gupta, 72, the CPI(M) leader, dies in Beijing.
30 The world premiere of the film *Gandhi* directed by Sir Richard Attenborough is held in New Delhi.
— Mrs. Covetta King, the wife of late Martin Luther King, calls on the President and the Prime Minister in New Delhi.
— Egyptian President Hosni Mubarak arrives in New Delhi on a three day official visit.

December

1 India and Egypt decide to set up a joint committee at the ministerial level to revitalise cooperation in various fields.
— The 28-member second Indian expedition leaves Panaji for Antarctica.
2 An eight member Indian scientist delegation returns to New Delhi after a 12 day visit to China.
— A 24-hour *bandh* is declared in Assam by the agitation leaders.
3 Competitions in the Ninth Asian Games end. China comes first followed by Japan. India ranks fifth with 13 gold, 19 silver and 25 bronze medals.
— India signs trade protocols for 1983 with Rumania and Czechoslovakia in Bucharest and Prague respectively.
4 The Ninth Asian Games come to an end in New Delhi.
— Andhra Pradesh, Karnataka and Tripura are to go to polls on 5 January 1983.
5 Sher-i-Kashmir Institute of Medical Sciences inaugurated at Srinagar.
6 Centre defers the tripartite talks on Assam without fixing any date for the next round.
— H. C. Sarin is appointed India's ambassador to Nepal.
— India and German Democratic Republic sign a protocol for cooperation in the field of sports.
— R. K. Dixit, Director in the External Affairs Ministry, is elected Chairman of International Telecommunication Satellite Organisation in Rome.
7 The conference of the International Civil Aviation Airports Association opens in New Delhi.
— Public Sector undertakings show a gross profit of Rs 2,500 crore during 1981-82, says Minister of Finance.

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— A Chinese health delegation arrives in New Delhi.

8 A security guard of the Indian High Commission at Kampala, Uganda is reported killed in an attack by unknown gunmen.

— Ranbir Singh, 75, the chief editor of daily *Milap* and a close associate of martyr Bhagat Singh, dies in New Delhi.

— The world's first ever underwater postal cancellation is arranged on board the Indian submarine *INS Kalvari* in the Bay of Bengal.

9 India and Algeria sign a cultural exchange programme in New Delhi.

— Dr. Hari Krishna Jain, Director, Indian Agricultural Research Institute, New Delhi is selected for Borlaug award for 1981 for his outstanding contribution to agricultural research.

10 The Prime Minister takes salute at the golden jubilee parade of the Indian Military Academy at Dehra Dun.

— The fourth congress of the International Association of Engineering Geology opens in New Delhi.

— In Imphal, four new ministers are sworn in.

— India's first pacemaker bank is set up at the KEM Hospital in Bombay.

11 India and Vietnam sign in New Delhi a protocol to increase bilateral trade.

— Proposed visit of an Indian delegation to China to participate in Dr. Kotnis Memorial function in Beijing is cancelled following criticism by the Chinese official news agency of the inclusion of two Arunachal Pradesh dance items at the concluding ceremony of the Asiad.

— The Planning Commission sets up a 20-member experts committee to develop the Himalayan region on scientific lines to be headed by Dr. Hanumantha Rao.

— The Election Commission has evolved comprehensive model code of conduct for the guidance of political parties, candidates and government in connection with elections.

12 The seven-day second International Koran Congress opens in New Delhi.

— In Madhya Pradesh a Rs 45-crore scheme is launched for construction of houses for the poor.

13 In Kerala, the Congress led by A. K. Antony formally merges with the Congress (I) at a function in Cochin.

— Dr. B. P. Pal and Dr. G.S. Venkataraman are selected for the Sanjay Gandhi Memorial Awards for 1982 for environment and ecology.

— Centre clears the Rs 400 crore Karnal refinery project.

14 India and the Soviet Union sign in New Delhi a protocol on cooperation in power generation.

— Ila Chandra Joshi, 80, a noted Hindi writer dies in Allahabad.

— The Supreme Court upholds the constitutional validity of the Cooking Coal Mines (Nationalisation) Act, 1982.

15 Indian freighter vessel *Jala Murari* sinks in Pacific; 61-member crew rescued.

— President Zail Singh inaugurates the Bhilwara International Grandmasters' Chess Tournament at New Delhi.

16 The Supreme Court upholds the Patna High Court judgement allowing withdrawal of criminal cases against Dr. Jagannath Mishra.

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— Foreign Minister of Vietnam Nguyen Co Thatch arrives in New Delhi on a three day visit.
— Manoranjan Guha, 81, a freedom fighter and a journalist, dies in Calcutta.

17 The Supreme Court strikes down two provisions of the Pension Liberalisation Rules, 1979 benefiting also those who retired before 31 March 1979.
— Professor M.S.A. Rao, the noted anthropologist is awarded Sarat Chandra Roy Memorial Medal by the Asiatic Society.

18 India and Vietnam set up a joint commission to promote economic, scientific and technical cooperation.
— The Unit Trust of India introduces a new monthly income scheme.

19 An Indian delegation led by the Lok Sabha Speaker arrives in Moscow to participate in the 60th anniversary of USSR.
— Mauritius Prime Minister Anerood Jagnauth arrives in New Delhi on a two-day visit.
— Centre announces the minimum support price for pulses for 1982-83.

20 In New Delhi Laxman Singh regains the national golf title.

21 Prof. Valji Desai, 80, a freedom fighter and an associate of Mahatma Gandhi, dies in New Delhi.
— Abu Sayed Ayub, 70, a noted Bengali literateur and critic, dies in Calcutta.

22 A Pakistani delegation arrives in New Delhi to finalise the format of the Indo-Pak joint commission.
— Enuga Reddy is named UN Assistant Secretary General from January 1983.

23 The Reserve Bank appoints an experts committee to review the working of the monetary system.
- Twenty-two writers are named for the 1982 Sahitya Akademi awards.
— The second cricket test match between India and Pakistan opens in Karachi.
— *Sanjivini*, a voluntary organisation and four writers are named for 1982 Sanskriti Pratishthan awards.

24 India and Pakistan sign an agreement on setting up a jo int commission to strengthen mutual understanding and coo peration at the end of their two-day talks in New Delhi.
— India and the Soviet Union sign a trade protocol for 1983 in New Delhi.
— Indo-Bangladesh joint river commission in New Delhi agrees to set up a joint committee of experts to carry out the feasibility study of Farakka waters.
— Sombhu Mitra, a distinguished Bengali director, actor and play writer, is the recipient of 1982 Kalidas Samman, a national award instituted by the Madhya Pradesh Government to honour exceptional dedication in creative arts.

25 President of the Akali Dal Sant Harchand Singh Longowal says that the Dal stands for national unity and solidarity and has not raised the cry for Khalistan.
— The World Punjabi Conference opens in New Delhi. President Zail Singh confers Shiromani awards on 17 persons for outstanding contribution in different fields.
— Ghalib awards for 1982 presented to four Urdu writers in New Delhi.

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27 The Assam movement leaders launch a six-day renewed agitation programme to press for their demands.
— Oil and gas is struck in a new Godavari basin near Kakinada in Andhra Pradesh.
— Mahendra Mohan Choudhary, 75, a veteran freedom fighter and a former Assam Chief Minister, dies in Guwahati.
28 The second Indian expedition lands successfully on Antarctica.
29 Gas is struck in a well west of Bombay High.
— India and Iraq sign an agreement in New Delhi to cooperate in the fields of ionospheric and cosmic ray, electronics and pharmacology.
— Joseph Dorffman, the Soviet Grand Master, wins the Bhilwara International Grand Master's Chess Tournament in New Delhi; Pravin Thipsay becomes India's 6th International Master.
30 President Zail Singh gives away national awards for outstanding export performance during 1979-80 at a function in New Delhi.
— The Gujarat Assembly rejects the no-confidence motion against Solanki ministry.
— The fourth Indian national philatelic exhibition, INPEX '82, opens in New Delhi.
— Datta Dharmadhikari, 72, a veteran Marathi film director, dies in Pune.
31 The second Indian expedition to Antarctica begins scientific experiments.

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29 GENERAL INFORMATION

TABLE OF PRECEDENCE

(Published on 26 July 1979)

1. President
2. Vice-President
3. Prime Minister
4. Governors of States within their respective States
5. Former Presidents
6. Chief Justice of India
   Speaker of the Lok Sabha
7. Cabinet Ministers of the Union
   Chief Ministers of States within their respective States
   Deputy Chairman, Planning Commission
   Leaders of Opposition in the Rajya Sabha and the Lok Sabha

7A. Holders of Bharat Ratna Decoration

8. Ambassadors Extraordinary and Plenipotentiary and High Commissioners of Commonwealth countries accredited to India
   Chief Ministers of States outside their respective States
   Governors of States outside their respective States
9. Judges of the Supreme Court
10. Deputy Chairman, Rajya Sabha
    Deputy Chief Ministers of States
    Deputy Speaker, Lok Sabha
    Members of the Planning Commission
    Ministers of State of the Union and any other Minister in the Ministry of Defence for defence matters
11. Attorney General of India
    Cabinet Secretary
    Comptroller and Auditor-General of India
    Lieutenant Governors within their respective Union Territories
12. Chiefs of Staff holding the rank of full General or equivalent rank
13. Envoys Extraordinary and Ministers Plenipotentiary accredited to India
14. Chairman and Speakers of State Legislatures within their respective States
    Chief Justices of High Courts within their respective jurisdictions
15. Cabinet Ministers in States within their respective States
    Chief Ministers of Union Territories and Chief Executive Councillor, Delhi, within their respective Union Territories
    Deputy Ministers of the Union
16. Officiating Chiefs of Staff holding the rank of Lieutenant General or equivalent rank

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17. Chairman, Minorities Commission
Chairman, Scheduled Castes and Scheduled Tribes Commission
Chairman, Union Public Service Commission
Chief Election Commissioner
Chief Justices of High Courts outside their respective jurisdictions
Puisne Judges of High Courts within their respective jurisdictions
18. Cabinet Ministers in States outside their respective States
Chairmen and Speakers of State Legislatures outside their respective States
Chairman, Monopolies and Restrictive Trade Practices Commission
Deputy Chairmen and Deputy Speakers of State Legislatures within their respective States
Ministers of State in States within their respective States
Ministers of Union Territories and Executive Councillors, Delhi, within their respective Union Territories
Speakers of Legislative Assemblies in Union Territories and Chairman of Delhi Metropolitan Council within their respective Union Territories
19. Chief Commissioner of Union Territories not having Councils of Ministers, within their respective Union Territories
Deputy Ministers in States within their respective States
Deputy Speakers of Legislative Assemblies in Union Territories and Deputy Chairman of Metropolitan Council Delhi, within their respective Union Territories
20. Deputy Chairmen and Deputy Speakers of State Legislatures, outside their respective States
Ministers of State in States, outside their respective States
Puisne Judges of High Courts outside their respective jurisdictions
21. Members of Parliament
22. Deputy Ministers in States outside their respective States
23. Army Commanders/Vice Chief of the Army Staff or equivalent in other Services
Chief Secretaries to State Governments within their respective States
Commissioner for Linguistic Minorities
Commissioner for Scheduled Castes and Scheduled Tribes
Members, Minorities Commission
Members, Scheduled Castes and Scheduled Tribes Commission
Officers of the rank of full General or equivalent rank
Secretaries to the Government of India (including officers holding this office ex-officio)
Secretary, Minorities Commission
Secretary, Scheduled Castes and Scheduled Tribes Commission
Secretary to the President
Secretary to the Prime Minister
Secretary, Rajya Sabha/Lok Sabha
Solicitor General
24. Officers of the rank of Lieutenant General or equivalent rank
25. Additional Secretaries to the Government of India
Additional Solicitor General
Advocate Generals of States
Chairman, Tariff Commission
Charge d' Affairs and Acting High Commissioners *a pied* and *ad interim*
Chief Ministers of Union Territories and Chief Executive Councillor, Delhi, outside their respective Union Territories
Chief Secretaries of State Governments outside their respective States
Deputy Comptroller and Auditor General
Deputy Speakers of Legislative Assemblies in Union Territories and Deputy Chairman, Delhi Metropolitan Council, outside their respective Union Territories
Director, Central Bureau of Investigation
Director General, Border Security Force
Director General, Central Reserve Police
Director, Intelligence Bureau
Lieutenant Governors outside their respective Union Territories
Members, Monopolies and Restrictive Trade Practices Commission
Members, Union Public Service Commission
Ministers of Union Territories and Executive Councillor, Delhi, outside their respective Union Territories
Principal Staff Officers of the Armed Forces of the rank of Major General or equivalent rank

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Speakers of Legislative Assemblies in Union Territories and Chairman of Delhi Metropolitan Council, outside their respective Union Territories.

26. Joint Secretaries to the Government of India and officers of equivalent rank

Officers of the rank of Major-General or equivalent rank.

PRESIDENTS OF INDIA

Dr. Rajendra Prasad (1884—1963)	26 January 1950—13 May 1962
Dr. Sarvepalli Radhakrishnan (1888—1975)	13 May 1962—13 May 1967
Dr. Zakir Husain (1897—1969)	13 May 1967—3 May 1969
Varahagiri Venkatagiri (1894—1980)	3 May 1969—20 July 1969 (Acting)
Justice Mohammad Hidayatullah (b—1905)	20 July 1969—24 August 1969 (Acting)
Varahagiri Venkatagiri	24 August 1969—24 August 1974
Fakhruddin Ali Ahmed (1905—1977)	24 August 1974—11 February 1977
B. D. Jatti (b—1912)	11 February 1977—25 July 1977 (Acting)
Neelam Sanjiva Reddy (b—1913)	25 July 1977—25 July 1982
Giani Zail Singh (b—1916)	25 July 1982—Till date

VICE-PRESIDENTS OF INDIA

Dr. Sarvepalli Radhakrishnan	1952—1962
Dr. Zakir Husain	1962—1967
Varahagiri Venkatagiri	1967—1969
Gopal Swarup Pathak (1896—1982)	1969—1974
B. D. Jatti	1974—1979
Mohammad Hidayatullah	1979—Till date

PRIME MINISTERS OF INDIA

Jawaharlal Nehru (1889—1964)	15 August 1947—27 May 1964
Gulzari Lal Nanda (b—1898)	27 May 1964—9 June 1964 (Acting)
Lal Bahadur Shastri (1904—1966)	9 June 1964—11 January 1966
Gulzari Lal Nanda	11 January 1966—24 January 1966 (Acting)
Indira Gandhi (b—1917)	24 January 1966—24 March 1977
Morarji Desai (b—1896)	24 March 1977—28 July 1979
Charan Singh (b—1902)	28 July 1979—14 January 1980
Indira Gandhi	14 January 1980—Till date

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CHIEF JUSTICES OF INDIA

Harilal J. Kania	14 August 1947—6 November 1951
M. Patanjali Sastri	7 November 1951—3 January 1954
Mehar Chand Mahajan	4 January 1954—22 December 1954
B. K. Mukharjea	23 December 1954—29 January 1956
S. R. Das	1 February 1956—30 September 1959
Bhuvaneshwar Prasad Sinha	1 October 1959—31 January 1964
P. B. Gajendargadkar	1 February 1964—15 March 1966
A. K. Sarkar	16 March 1966—29 June 1966
K. Subba Rao	30 June 1966—11 April 1967
K. N. Wanchoo	12 April 1967—25 February 1968
M. Hidayatullah	25 February 1968—16 December 1970
J. C. Shah	17 December 1970—21 January 1971
S. M. Sikri	22 January 1971—25 April 1973
A. N. Ray	26 April 1973—28 January 1977
M. H. Beg	29 January 1977—21 February 1978
Y. V. Chandrachud	22 February 1978—Till date

RECIPIENTS OF BHARAT RATNA

Name	Year in which Awarded
Dr. Sarvepalli Radhakrishnan (1888—1975)	1954
Chakravarti Rajagopalachari (1878—1972)	1954
Dr. Chandrasekhar Venkat Raman (1888—1970)	1954
Dr. Bhagwan Das (1869—1958)	1955
Dr. Mokshagundam Visvesvaraya (1861—1962)	1955
Jawaharlal Nehru (1889—1964)	1955
Govind Ballabh Pant (1887—1961)	1957
Dr. Dhondo Keshav Karve (1858—1962)	1958
Dr. Bidhan Chandra Roy (1882—1962)	1961
Purushottam Das Tandon (1882—1962)	1961
Dr. Rajendra Prasad (1884—1963)	1962
Dr. Zakir Husain (1897—1969)	1963
Dr. Pandurang Vaman Kane (1880—1972)	1963
Lal Bahadur Shastri (Posthumous) (1904—1966)	1966
Indira Gandhi (b—1917)	1971
Varahagiri Venkatagiri (1894—1980)	1975
Kumaraswami Kamraj (Posthumous) (1903—1975)	1976
Mary Teresa Bojaxhiu (Mother Teresa) (b—1910)	1980
Acharya Vinoba Bhave (Posthumous) (1895—1982)	1983

COMMANDERS-in-CHIEF

General Sir Roy Bucher	1 January 1948—14 January 1949
General K. M. Cariappa	15 January 1949—14 January 1953
General Maharaj Rajendra Sinhji	14 January 1953—31 March 1955

CHIEFS OF THE ARMY STAFF

General Maharaj Rajendra Sinhji	1 April 1955—14 May 1955
General S. M. Srinagesh	15 May 1955—7 May 1957
General K. S. Thimayya	8 May 1957—7 May 1961
General P. N. Thapar	8 May 1961—19 November 1962
General J. N. Chaudhuri	20 November 1962—7 June 1966
General P. P. Kumaramangalam	8 June 1966—7 June 1969
General S. H. F. J. Manekshaw	8 June 1969—31 December 1972
Field Marshal S. H. F. J. Manekshaw	1 January 1973—15 January 1973
General G. G. Bewoor	15 January 1973—31 May 1975
General T. N. Raina	1 June 1975—31 May 1978
General O. P. Malhotra	1 June 1978—31 May 1981
General K. V. Krishna Rao	1 June 1981—31 July 1983
General A. S. Vaidya	1 August 1983—Till date

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CHIEFS OF AIR STAFF

Air Marshal Sir Thomas Elmhirst	15 August 1947—21 February 1950
Air Marshal Sir Ronald Ivelaw-chapman	22 February 1950—9 December 1951
Air Marshal Sir Gerald Gibbs	10 December 1951—31 March 1954
Air Marshal S. Mukherjee	1 April 1954—8 November 1960
Air Marshal A. M. Engineer	1 December 1960—31 July 1964
Air Chief Marshal Arjan Singh	1 August 1964—15 July 1969
Air Chief Marshal P. C. Lal	16 July 1969—15 January 1973
Air Chief Marshal O. P. Mehra	16 January 1973—1 February 1976
Air Chief Marshal H. Moolgavkar	1 February 1976—31 August 1978
Air Chief Marshal I. H. Latif	1 September 1978—31 August 1981
Air Chief Marshal Dilbagh Singh	1 September 1981—Till date

CHIEFS OF NAVAL STAFF

Vice Admiral R. D. Katari	22 April 1958—4 June 1962
Vice Admiral B. S. Soman	5 June 1962—3 March 1966
Admiral A. K. Chatterjee	4 March 1966—27 February 1970
Admiral S. M. Nanda	28 February 1970—28 February 1973
Admiral S. N. Kohli	1 March 1973—28 February 1976
Admiral J. L. Cursetji	1 March 1976—28 February 1979
Admiral R. L. Pereira	1 March 1979—28 February 1982
Admiral O. S. Dawson	1 March 1982—Till date

WINNERS OF PARAM VIR CHAKRA

Major Somnath Sharma, Kumaon Regiment
Posthumous—November 1947 (Kashmir Operations, 1947-48)

2nd Lt. R. R. Rane, Corps of Engineers
April 1948 (Kashmir Operations, 1947-48)

Company Havildar Major Piru Singh, Rajputana Rifles
Posthumous—July 1948 (Kashmir Operations, 1947-48)

L/Nk. Karam Singh, Sikh Regiment
October 1948 (Kashmir Operations, 1947-48)

Naik Jadunath Singh, Rajput Regiment
Posthumous—December 1948 (Kashmir Operations, 1947-48)

Captain Gurbachan Singh Salaria, Gorkha Rifles
Posthumous—December 1961 (Congo)

Major Dhan Singh Thapa, Gorkha Rifles
October 1962 (Ladakh)

Subedar Joginder Singh, Sikh Regiment
October 1962 (NEFA)

Major Shaitan Singh, Kumaon Regiment
Posthumous—November 1962 (Ladakh)

CQMH Abdul Hamid, Grenadiers
Posthumous—September 1965 (Operations against Pakistan)

Lt Col. A. B. Tarapore, Armoured Corps
Posthumous—September 1965 (Operations against Pakistan)

Major Hoshiar Singh, 3 Grenadiers
December 1971 (Indo-Pakistan conflict)

2/Lt. Arun Khetarpal, 17 Horse
Posthumous—December 1971 (Indo-Pakistan conflict)

L/Nk. Albert Ekka, 14 Guards
Posthumous—December 1971 (Indo-Pakistan conflict)

Flying Officer Nirmal Jit Singh Sekhon
Posthumous—December 1971 (Indo-Pakistan conflict)

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NATIONAL HIGHWAYS AND THEIR LENGTHS

Sl. No.	National Highway No.	Route	States through which passing (km)
1	2	3	4
1.	1	Delhi-Ambala-Jalandhar-Amritsar-Indo/Pak Border	Delhi (22), Haryana (180), Punjab (254); Total 456
2.	1A	Jalandhar-Madhopur-Jammu-Banihal-Srinagar-Baramula-Uri	Punjab (108), Himachal Pradesh (14), Jammu and Kashmir (541); Total 663
3.	1B	Batote-Doda-Kishtwar	Jammu and Kashmir (107)
4.	2	Delhi-Mathura-Agra-Kanpur-Allahabad-Varanasi-Mohania-Barhi-Palsit-Baidyabati-Bara Calcutta	Delhi (19), Haryana (74), Uttar Pradesh (770), Bihar (392), West Bengal (235); Total 1,490
5.	3	Agra-Gwalior-Shivpuri-Indore-Dhule-Nasik-Thane-Bombay	Uttar Pradesh (26), Rajasthan (32), Madhya Pradesh (712), Maharashtra (391); Total 1,161
6.	4	Junction with National Highway No 3 near Thane-Pune-Belgaum-Hubli-Bangalore-Ranipet-Madras	Maharashtra (371), Karnataka (658), Andhra Pradesh (83), Tamil Nadu (123); Total 1,235
7.	4A	Belgaum-Anmod-Ponda-Panaji	Karnataka (82), Goa (71); Total 153
8.	5	Junction with National Highway No 6 near Baharagora-Cuttack-Bhubaneswar-Vishakhapatnam-Vijayawada-Madras	Orissa (488), Andhra Pradesh (1,000), Tamil Nadu (45); Total 1,533
9.	5A	Junction with National Highway No 6 near Haridaspur Paradip Port	Orissa (77)
10.	6	Dhule-Nagpur-Raipur-Sambalpur-Baharagora-Calcutta	Maharashtra (686), Madhya Pradesh (314), Orissa (462), Bihar (22), West Bengal (161); Total 1,645
11.	7	Varanasi-Mangawan-Rewa-Jabalpur-Lakhnadon-Nagpur-Hyderabad-Kurnool-Bangalore-Krishnagiri-Salem-Dindigul-Madurai-Cape Comorin (Kanya Kumari)	Uttar Pradesh (128), Madhya Pradesh (504), Maharashtra (232), Andhra Pradesh (753), Karnataka (125), Tamil Nadu (627); Total 2,369
12.	7A	Palyankottai-Tuticorin Port	Tamil Nadu (51)
13.	8	Delhi-Jaipur-Ajmer-Udaipur-Ahmadabad-Vadodara-Bombay	Delhi (13), Haryana (101), Rajasthan (688), Gujarat (498), Maharashtra (128); Total 1,428
14.	8A	Ahmadabad-Limbdi-Morvi-Kandla	Gujarat (378)
15.	8B	Bamanbore-Rajkot-Porbandar	Gujarat (206)
16.	8C	Chiloda-Gandhinagar-Sarkhej	Gujarat (46)
17.	9	Pune-Sholapur-Hyderabad-Vijayawada	Maharashtra (336), Karnataka (75), Andhra Pradesh (380); Total 791
18.	10	Delhi-Fazilka-Indo/Pak Border	Delhi (18), Haryana (313), Punjab (72); Total 403
19.	11	Agra-Jaipur-Bikaner	Uttar Pradesh (51), Rajasthan (531); Total 582
20.	12	Jabalpur-Bhopal-Biaora-Rajgarh-Khilchipur-Aklera-Jhalawar-Kota-Bundi-Devli Tonk-Jaipur	Madhya Pradesh (490), Rajasthan (400); Total 890
21.	13	Sholapur-Chitradurga	Maharashtra (43), Karnataka (448); Total 491
22.	15	Pathankot-Amritsar-Bhatinda-Ganganagar-Bikaner-Jaisalmer-Barmer-Samakhiali (near Kandla)	Punjab (350), Rajasthan (956), Gujarat (270); Total 1,526

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1	2	3	4
23.	17	Panvel-Mahad-Panaji-Karwar-Managalore-Cannanore-Calicut (Kozhikode)-Fedoke-Kuttipuram Pudu Ponnani-Chowghat-Cranganur-Junction with National Highway 47 near Edapally	Maharashtra (482), Goa (139), Karnataka (280), Kerala (368); Total 1,269
24.	17A	Junction with National Highway No 17 near Cortalim-Marmagao	Goa (19)
25.	21	Junction with National Highway No 22 near Chandigarh-Rupar-Bilaspur-Mandi-Kulu, Manali	Chandigarh (24), Punjab (67), Himachal Pradesh (232); Total 323
26.	22	Ambala-Kalka-Shimla-Narkanda-Rampur-Chini-Indo-Tibet Border near Shipkila	Haryana (30), Punjab (31), Himachal Pradesh (398); Total 459
27.	23	Chas-Ranchi-Rourkela-Talcher-Junction with National Highway No 42	Bihar (250), Orissa (209); Total 459
28.	24	Delhi-Bareilly-Lucknow	Delhi (8), Uttar Pradesh (430); Total 438
29.	25	Lucknow-Kanpur-Jhansi-Shivpuri	Uttar Pradesh (237), Madhya Pradesh (82); Total 319
30.	26	Jhansi-Lakhnadon	Uttar Pradesh (128), Madhya Pradesh (268); Total 396
31.	27	Allahabad-Mangawan	Uttar Pradesh (43), Madhya Pradesh (50); Total 93
32.	28	Junction with National Highway 31 near Barauni-Muzaffarpur-Pipra-Gorakhpur-Lucknow	Bihar (259), Uttar Pradesh (311); Total 570
33.	28A	Junction with National Highway 28 near Pipra-Sagauli-Raxaul-Indo/Nepal Border	Bihar (68)
34.	29	Gorakhpur-Ghazipur-Varanasi	Uttar Pradesh (196)
35.	30	Junction with National Highway 2 near Mohania-Patna-Bakhtiyarpur	Bihar (230)
36.	31	Junction with National Highway 2 near Barhi-Bakhtiyarpur-Mokameh-Purnea-Dalkola-Siliguri-Sivok-Cooch Behar-North Salmara-Nalbari-Charali-Amingaon Junction with National Highway 37	Bihar (437), West Bengal (366), Assam (322); Total 1,125
37.	31A	Sivok-Gangtok	West Bengal (30), Sikkim (62); Total 92
38.	31B	North Salmara-Junction with National Highway 37 near Goalpara	Assam (19)
39.	31C	Near Galgalia-Baghdogra-Chalsa-Nagrakata-Goyerkata-Dalgaon-Hasimara-Rajabhatkhawa-Kochugaon-Sidli-Junction with National Highway 31 near Bijni	West Bengal (142), Assam (93); Total 235
40.	32	Junction with National Highway 2 near Gobindpur-Dhanbad-Jamshedpur	Bihar (107), West Bengal (72); Total 179
41.	33	Junction with National Highway 2 near Barhi-Ranchi-Junction with National Highway 6 near Baharagora	Bihar (352)
42.	34	Junction with National Highway 31 near Dalkola-Berhampore-Barasat-Calcutta	West Bengal (443)
43.	35	Barasat-Bangaon-Indo/Bangla Desh Border	West Bengal (61)
44.	36	Nowgong-Dabaka-Dimapur (Manipur Road)	Assam (167), Nagaland (3); Total 170

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1	2	3	4
45.	37	Junction with National Highway 31B near Goalpara-Guwahati-Jorabat-Kamargaon-Makum-Saikhoaghat	Assam (680)
46.	38	Makum-Ledo-Lekhapani	Assam (54)
47.	39	Numaligarh-Imphal-Palel-Indo/Burma Border	Assam (115). Nagaland (110) Manipur (211); Total 436
48.	40	Jorabat-Shillong-Indo/Bangla Desh Border near Dawki	Meghalaya (161)
49.	41	Junction with National Highway 6 near Kolaghat-Haldia Port	West Bengal (51);
50.	42	Junction with National Highway 6 near Sambalpur-Angul-Junction with National Highway 5 near Cuttack	Orissa (261);
51.	43	Raipur-Vizianagaram-Junction with National Highway 5	Madhya Pradesh (316), Orissa (152), Andhra Pradesh (83); Total 551
52.	44	Shillong-Passi-Badarpur-Agartala	Meghalaya (184), Assam (111), Tripura (200); Total 495
53.	45	Madras-Tiruchirapalli Dindigul	Tamil Nadu (387)
54.	46	Krishnagiri-Ranipet	Tamil Nadu (132)
55.	47	Salem-Coimbatore-Trichur-Ernakulam-Trivandrum-Cape Comorin (Kanya Kumari)	Tamil Nadu (224), Kerala (416); Total 640
56.	48	Bangalore-Hassan-Mangalore	Karnataka (328)
57.	49	Madurai-Dhanushkodi	Tamil Nadu (160)
58.	50	Nasik-Junction with National Highway 4 near Pune	Maharashtra (192)
59.	51	Paikan-Tura-Dalu	Assam (22), Meghalaya (127); Total 149
60.	52	Baihata Charali-Tezpur-Bander Dewa-North Lakhimpur-Pasighat Tezu-Sitapani Junction with National Highway 37 near Saikhoaghat	Assam (540), Arunachal Pradesh (310); Total 850
61.	52A	Bander Dewa-Itanagar	Assam (5), Arunachal Pradeh (20); Total 25
62.	53	Junction with National Highway 44 near Badarpur-Jirighat-Imphal-Silchar	Assam (100), Manipur (220); Total 320
63.	54	Silchar-Aizawl-Lunglei	Assam (50), Mizoram (240); Total 290
		Total length	31,358 km

AMENDMENTS TO THE CONSTITUTION

1. *The Constitution (First Amendment) Act,* 1950.—This amendment provided for several new grounds of restrictions to the right to freedom of speech and expression and the right to practice any profession or to carry on any trade or business as contained in article 19 of the Constitution. These restrictions related to public order, friendly relations with foreign States or incitement to an offence in relation to the right to freedom of speech, and to the prescribing of professional or technical qualifications or the carrying on by the State etc. of any trade, business, industry or service in relation to the right to carry on any trade or business. The amendment also inserted two new articles, 31A and 31B and the Ninth Schedule to give protection from challenge to land reforms laws.

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2. *The Constitution (Second Amendment) Act,* 1952.—By this amendment, the scale of representation for election to Lok Sabha was readjusted.

3. *The Constitution (Third Amendment) Act,* 1954.—This amendment substituted entry 33 of List III (Concurrent List) of the Seventh Schedule to make it correspond to article 369.

4. *The Constitution (Fourth Amendment) Act,* 1955.—Article 31 (2) of the Constitution was amended to re-state more precisely the State's powers of compulsory acquisition and requisitioning of private property and distinguish it from cases where the operation of regulatory or prohibitory laws of the State results in "deprivation of property". Article 31A of the Constitution was also amended to extend its scope to cover categories of essential welfare legislation like abolition of *zamindaris,* proper planning of urban and rural areas and for effecting a full control over the mineral and oil resources of the country, etc. Six Acts were also included in the Ninth Schedule. Article 305 was also amended to save certain laws providing for State monopolies.

5. *The Constitution (Fifth Amendment) Act,* 1955.—This amendment made a change in article 3 so as to empower the President to specify a time limit for the State Legislatures to convey their views on the proposed Central laws affecting the area, boundaries, etc., of their States.

6. *The Constitution (Sixth Amendment) Act,* 1956.—This amendment made some changes in articles 269 and 286 relating to taxes on sale and purchase of goods in the course of inter-State trade and commerce. A new entry 92A was added to the Union List of the Seventh Schedule to the Constitution.

7. *The Constitution (Seventh Amendment) Act,* 1956.—This amendment Act purported to give effect to the recommendations of the States Re-organisation Commission and the necessary consequential changes. Broadly, the then existing States and territories were changed to have a two-fold classification of States and Union territories. The amendments also provided for composition of the House of the People, re-adjustment after every census, provisions regarding the establishment of new High Courts, High Court Judges, etc.

8. *The Constitution (Eighth Amendment) Act,* 1960.—Article 334 was amended with a view to extend the period of reservation of seats for the Scheduled Castes and the Scheduled Tribes, and to the Anglo-Indian community by nomination, in Parliament and in the State Legislatures for a further period of ten years.

9. *The Constitution (Ninth Amendment) Act,* 1960.—The purport of this amendment is to give effect to the transfer of certain territories to Pakistan in pursuance of the agreement entered into between the Governments of India and Pakistan. This amendment was necessitated in view of the judgment of the Supreme Court in "In re Berubari Union" by which it was held that any agreement to cede a territory to another country could not be implemented by a law made under article 3 but would only be implemented by an amendment of the Constitution.

10. *The Constitution (Tenth Amendment) Act,* 1961.—This Act amended article 240 and the First Schedule in order to include the areas of Dadra and Nagar Haveli as a Union territory and to provide for its administration under the regulation making powers of the President.

11. *The Constitution (Eleventh Amendment) Act,* 1961.—The

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purpose of this amendment was to amend articles 66 and 71 of the Constitution to provide that the election of the President or the Vice-President could not be challenged on the ground of any vacancy in the appropriate electoral college.

12. *The Constitution (Twelfth Amendment) Act,* 1962.—This amendment sought to include Goa, Daman and Diu as a Union territory and to amend article 240 for the purpose.

13. *The Constitution (Thirteenth Amendment) Act,* 1962.—By this amendment, a new article 371A was added to make special provisions with respect to the State of Nagaland in pursuance of an agreement between the Government of India and the Naga People's Convention.

14. *The Constitution (Fourteenth Amendment) Act,* 1962.—By this Act, Pondicherry was included in the First Schedule as a Union territory, and this Act had also enabled the creation of Legislatures by Parliamentary law for the Union territories of Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry.

15. *The Constitution (Fifteenth Amendment) Act,* 1963.—This amendment provided for the increase in the age of retirement of High Court Judges and for the provision of compensatory allowance to Judges who are transferred from one High Court to another. The Act also provided for the appointment of retired Judges to act as Judges of the High Court. Article 226 was also enlarged to empower the High Courts to issue directions, orders or writs to any Government authority, etc. if the cause of action for the exercise of such power arose in the territories wherein the High Court exercises jurisdiction notwithstanding that the seat of such Government authority is not within those territories. The Act also provided for the exercise of the powers of the Chairman of the Service Commissions, in their absence, by one of their Members.

16. *The Constitution (Sixteenth Amendment) Act,* 1963.—Article 19 was amended by this Act to impose further restrictions on the rights to freedom of speech and expression, to assemble peaceably and without arms and to form associations, in the interests of sovereignty and integrity of India. The oath or affirmation to be subscribed by candidates seeking election to Parliament and the State Legislatures have been amended to include as one of the conditions that they will uphold the sovereignty and integrity of India. The amendments are intended to promote national integration.

17. *The Constitution (Seventeenth Amendment) Act,* 1964.—Article 31A was further amended to prohibit the acquisition of land under personal cultivation unless the market value of the land is paid as compensation and the definition of "estate" as contained in that article had also been enlarged with retrospective effect. The Ninth Schedule had also been amended to include 44 more Acts.

18. *The Constitution (Eighteenth Amendment) Act,* 1966.—Article 3 was amended by this Act to specify that the expression "State" will include a Union territory also and to make it clear that the power to form a new State under this article includes a power to form a new State or Union territory by uniting a part of a State or Union territory to another State or Union territory.

19. *The Constitution (Nineteenth Amendment) Act,* 1966.—Article 324 was amended to effect a consequential change as a result of the decision to abolish Election Tribunals and to hear election petitions by High Courts.

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20. *The Constitution (Twentieth Amendment) Act,* 1966.—This amendment was necessitated by the decision of the Supreme Court in Chandramohan *vs.* State of Uttar Pradesh in which certain appointments of District Judges in the State of Uttar Pradesh were declared void by the Supreme Court. A new article 233A was added and the appointments made by the Governor were validated.

21. *The Constitution (Twenty-first Amendment) Act,* 1967.—By this amendment, Sindhi language was included in the Eighth Schedule.

22. *The Constitution (Twenty-second Amendment) Act,* 1969.—This Act was enacted to facilitate the formation of a new autonomous State of Meghalaya within the State of Assam.

23. *The Constitution (Twenty-third Amendment) Act,* 1969.—Article 334 was amended so as to extend the safeguards in respect of reservation of seats in Parliament and State Legislatures for the Scheduled Castes and the Scheduled Tribes as well as for the Anglo-Indians for a further period of ten years.

24. *The Constitution (Twenty-fourth Amendment) Act,* 1971.—This amendment was passed in the context of a situation that emerged with the verdict in Golaknath's case by the Supreme Court. Accordingly, this Act amended article 13 and article 368 to remove all doubts regarding the power of Parliament to amend the Constitution including the Fundamental Rights.

25. *The Constitution (Twenty-fifth Amendment) Act,* 1971.—This amendment further amended article 31 in the wake of the Bank Nationalisation case. The word 'amount' was substituted in place of 'compensation' in the light of the judicial interpretation of the word 'compensation' meaning "adequate compensation".

26. *The Constitution (Twenty-sixth Amendment)* Act, 1971.—By this amendment, the privy purses and privileges of the former rulers of Indian States were abolished. This amendment was passed as a result of the Supreme Court's decision in Madhav Rao's case.

27. *The Constitution (Twenty-seventh Amendment)* Act, 1971.—This amendment Act was passed to provide for certain matters necessitated by the reorganization of the North-Eastern States. A new article 239B was inserted which enabled the promulgation of Ordinances by the Administrators of certain Union territories.

28. *The Constitution (Twenty-eighth Amendment) Act,* 1972.—This amendment was enacted to abolish the special privileges of the members of the Indian Civil Service in matters of leave, pension and rights as respects disciplinary matters.

29. *The Constitution (Twenty-ninth Amendment) Act,* 1972.—The Ninth Schedule to the Constitution was amended to include therein two Kerala Acts on Land Reforms.

30. *The Constitution (Thirtieth Amendment) Act,* 1972.—The purpose of the amendment was to amend article 133 in order to do away with the valuation test of Rs 20,000 as fixed therein, and to provide instead for an appeal to the Supreme Court in civil proceedings only on a certificate issued by the High Court that the case involves a substantial question of law of general importance and that in the opinion of the High Court, the question needs to be decided by the Supreme Court.

31. *The Constitution (Thirty-first Amendment) Act,* 1973.—This Act *inter alia* raises the upper limit for the representation of the States in the Lok Sabha from 500 to 525 and reducing the upper limit for

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the representation of the Union territories from 25 members to 20 members.

32. *The Constitution (Thirty-second Amendment) Act,* 1973.—This Act provided the necessary constitutional authority for giving effect to the provision of equal opportunities to different areas of the State of Andhra Pradesh and for the constitution of an Administrative Tribunal with jurisdiction to deal with grievances relating to public services. It also empowered Parliament to legislate for the establishment of a Central University in that State.

33. *The Constitution (Thirty-third Amendment) Act,* 1974.—By this amendment, articles 101 and 190 were amended in order to streamline the procedure for resignation by Members of Parliament and State Legislatures.

34. *The Constitution (Thirty-fourth Amendment) Act,* 1974.—By this Act, twenty more land tenure and land reform laws enacted by the various State Legislatures were included in the Ninth Schedule.

35. *The Constitution (Thirty-fifth Amendment) Act,* 1974.—By this Act, a new article 2A was added thereby conferring on Sikkim the status of an associate State of the Indian Union. Consequent amendments were made to articles 80 and 81. A new Schedule i.e. Tenth Schedule, was added laying down the terms and conditions of association of Sikkim with the Union.

36. *The Constitution (Thirty-sixth Amendment) Act,* 1975.—This was enacted to make Sikkim a full-fledged State of the Indian Union and to include it in the First Schedule to the Constitution and to allot to Sikkim one seat each in the Council of State and in the House of the People. Article 2A and the Tenth Schedule inserted by the Constitution (Thirty-fifth Amendment) Act were omitted and articles 80 and 81 were suitably amended.

37. *The Constitution (Thirty-seventh Amendment) Act,* 1975.—By this Act, the Union territory of Arunachal Pradesh was provided with a Legislative Assembly. Article 240 of the Constitution was also amended to provide that as in the case of other Union territories with legislatures, the power of President to make regulations for the Union territory of Arunachal Pradesh may be exercised only when the Assembly is either dissolved or its functions remain suspended.

38. *The Constitution (Thirty-eighth Amendment) Act,* 1975.—This Act amended articles 123, 213 and 352 of the Constitution to provide that the satisfaction of the President or the Governor contained in these articles would not be called in question in any court of law.

39. *The Constitution (Thirty-ninth Amendment) Act,* 1975.—By this Act, disputes relating to the election of the President, Vice-President, Prime Minister and the Speaker are to be determined by such authority as may be determined by Parliamentary law. Certain Central enactments were also included in the Ninth Schedule by this Act.

40. *The Constitution (Fortieth Amendment) Act,* 1976.—This Act provided for the vesting in the Union of all mines, minerals and other things of value underlying the ocean within the territorial waters or the continental shelf or the exclusive economic zone of India. It further provided that all other resources of the exclusive economic zone of India shall also vest in the Union. This Act also provided that the limits of the territorial waters, the continental shelf, the exclusive economic zone and the maritime zones of India shall be as specified from time to time by or under any law made by Parliament.

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Also some more Acts were added to the Ninth Schedule.

41. *The Constitution (Forty-first Amendment) Act,* 1976.—By this Act, article 316 was amended to raise the retirement age of Members of the State Public Service Commissions and Joint Public Service Commissions from 60 to 62 years.

42. *The Constitution (Forty-second Amendment) Act,* 1976.—This Act made a number of important amendments in the Constitution. These amendments were mainly for purpose of giving effect to the recommendations of the Swaran Singh Committee.

Some of the important amendments made are for the purpose of spelling out expressly the high ideals of socialism, secularism and the integrity of the nation, to make the Directive Principles more comprehensive and giving them precedence over those Fundamental Rights which have been allowed to be relied upon to frustrate socio-economic reforms. The amendment Act also inserted a new chapter on the Fundamental Duties of the citizens and made special provisions for dealing with anti-national activities, whether by individuals or by associations. The judiciary provisions were also amended by providing for a requirement as to the minimum number of Judges for determining questions as to the constitutional validity of laws and for a special majority of not less than two-thirds for declaring any law to be constitutionally invalid.

To reduce the mounting arrears in High Courts and to secure the speedy disposal of service matters, revenue matters and certain other matters of special importance in the context of the socio-economic development and progress, this amendment Act provided for the creation of administrative and other Tribunals for dealing with such matters while preserving the jurisdiction of the Supreme Court in regard to such matters under article 136 of the Constitution. Certain modifications in the writ jurisdiction of the High Courts under article 226 were also made.

43. *The Constitution (Forty-third Amendment) Act,* 1977.—This Act *inter alia* provided for the restoration of the jurisdiction of the Supreme Court and High Courts, curtailed by the enactment of the Constitution (Forty-second Amendment) Act, 1976 and accordingly articles 32A, 131A, 144A, 226A and 228A, included in the Constitution by the said amendment were omitted by this Act. The Act also provided for the omission of article 31D which conferred special powers on Parliament to enact certain laws in respect of anti-national activities.

44. *The Constitution (Forty-fourth Amendment) Act,* 1978.—The right to property which had been the occasion for more than one amendment of the Constitution was omitted as a Fundamental Right and it was made only as a legal right. It was, however, ensured that the removal of the right to property from the list of Fundamental Rights would not affect the right of minorities to establish and administer educational institutions of their choice. Article 352 of the Constitution was amended to provide "armed rebellion" as one of the circumstances for the declaration of emergency. Internal disturbance not amounting to armed rebellion would not be a ground for the issuance of a Proclamation. The right to personal liberty as contained in articles 21 and 22 is further strengthened by the provision that a law for preventive detention cannot authorise, in any case, detention for a longer period than two months unless an Advisory Board has reported that there is sufficient cause for such detention. The additional safe-

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guard has also been provided by the requirement that the Chairman of an Advisory Board shall be a serving Judge of the appropriate High Court and that the Board shall be constituted in accordance with the recommendations of the Chief Justice of that High Court.

With a view to avoiding delays, articles 132, 133 and 134 were amended and a new article 134A was inserted to provide that a High Court should consider the question of granting a certificate for appeal to Supreme Court immediately after the delivery of the judgment, decree, final order or sentence concerned on the basis of an oral application by a party or, if the High Court deems fit so to do, on its own. The other amendments made by the Act are mainly for removing or correcting the distortions which came into the Constitution by reason of the amendments initiated during the period of internal emergency.

45. *The Constitution (Forty-fifth Amendment) Act,* 1980.—This was passed to extend the safeguards in respect of reservation of seats in Parliament and State Assemblies for the Scheduled Castes, the Scheduled Tribes as well as for the Anglo-Indians for a further period of ten years.

46. *The Constitution (Forty-sixth Amendment) Act,* 1982.—Article 269 was amended so that the tax levied on the consignment of goods in the course of inter-state trade or commerce shall be assigned to the States. This article was also amended to enable Parliament to formulate by law principles for determining when a consignment of goods takes place in the course of inter-state trade or commerce. A new entry 92B was also inserted in the Union List to enable the levy of tax on the consignment of goods where such consignment takes place in the course of inter-state trade or commerce.

Clause (3) of article 286 was amended to enable Parliament to specify, by law, restrictions and conditions in regard to the system of levy, rates and other incidence of tax on the transfer of goods involved in the execution of a works contract, on the delivery of goods on hire purchase or any system of payment by instalments, etc.

Article 366 was also suitably amended to insert a definition of "tax on the sale or purchase of goods" to include transfer for consideration of controlled commodities, transfer of property in goods involved in the execution of a works contract, delivery of goods on hire purchase or any system of payment by instalments, etc.

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APPENDICES

PERSONNEL OF THE GOVERNMENT[1]

President	*Zail Singh*
Vice President	M. Hidayatullah
Members of Cabinet	*Portfolios*
1. Smt. Indira Gandhi	Prime Minister (All Ministries/Departments not specified below)
2. Pranab Kumar Mukherjee	Minister of Finance
3. P. V. Narasimha Rao	Minister of External Affairs
4. Prakash Chandra Sethi	Minister of Home Affairs
5. Shiv Shankar	Minister of Energy
6. R. Venkataraman	Minister of Defence
7. A. B. A. Ghani Khan Choudhury	Minister of Railways
8. S. B. Chavan	Minister of Planning
9. Jagannath Kaushal	Minister of Law, Justice and Company Affairs
10. Veerendra Patil	Minister of Labour and Rehabilitation
11. K. Vijaya Bhaskara Reddy	Minister of Shipping and Transport
12. Vasant Sathe	Minister of Chemicals and Fertilizers
13. B. Shankaranand	Minister of Health and Family Welfare
14. Rao Birendra Singh	Minister of Agriculture
15. Buta Singh	Minister of Parliamentary Affairs, Sports and Works and Housing
16. Vishwanath Pratap Singh	Minister of Commerce and of the Department of Supply
17. Narayan Datt Tiwari	Minister of Industry
Ministers of State	
1. Z. R. Ansari	Minister of State in the Ministry Shipping and Transport
2. Bhagwat Jha Azad[2]	Minister of State in the Ministry Food and Civil Supplies

[1]Appendix to Chapter 3, as on 14 August 1983.

[2]Independent charge.

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3. H. K. L. Bhagat[1]	Minister of State in the Ministry of Information and Broadcasting and Minister of State in the Department of Parliamentary Affairs
4. K. P. Singh Deo	Minister of State in the Ministry of Defence
5. Dharmavir	Minister of State in the Ministry of Labour and Rehabilitation
6. V. N. Gadgil	Minister of State in the Ministry of Communications
7. Smt. Sheila Kaul[1]	Minister of State in the Ministries of Education and Culture and Social Welfare
8. Arif Mohammad Khan	Minister of State in the Ministry of Agriculture
9. Khursheed Alam Khan[1]	Minister of State in the Ministry of Tourism and Civil Aviation
10. Smt. Mohsina Kidwai	Minister of State in the Ministry of Health and Family Welfare
11. S. M. Krishna	Minister of State in the Ministry of Industry
12. Nihar Rajan Laskar	Minister of State in the Ministry of Home Affairs
13. Yogendra Makwana	Minister of State in the Ministry of Agriculture
14. Ram Niwas Mirdha[1]	Minister of State in the Ministry of Irrigation
15. Gargi Shankar Mishra	Minister of State in the Department of Petroleum in the Ministry of Energy
16. Hari Nath Mishra[1]	Minister of State in the Ministry of Rural Development
17. Shivraj V. Patil	Minister of State in the Departments of Science and Technology, Atomic Energy, Space, Electronics and Ocean Development
18. A. A. Rahim	Minister of State in the Ministry of External Affairs
19. Kalp Nath Rai	Minister of State in the Department of Parliamentary Affairs
20. Pattabhi Rama Rao	Minister of State in the Ministry of Finance
21. R. C. Rath	Minister of State in the Ministry of Chemicals and Fertilizers
22. N. K. P. Salve[1]	Minister of State in the Ministry of Steel and Mines
23. C. K. Jaffar Sharief	Minister of State in the Ministry of Railways
24. Dalbir Singh	Minister of State in the Department of Coal in the Ministry of Energy
25. Smt. Ram Dulari Sinha	Minister of State in the Ministry of Commerce
26. P. Venkatasubbaiah	Minister of State in the Ministry of Home Affairs

Deputy Ministers

1. Mohd. Usman Arif	Deputy Minister in the Ministry of Works and Housing
2. Ghulam Nabi Azad	Deputy Minister in the Ministry of Law, Justice and Company Affairs
3. Ashok Gehlot	Deputy Minister in the Ministry of Tourism and Civil Aviation
4. Kumari Kumudben M. Joshi	Deputy Minister in the Ministry of Health and Family Welfare

[1]Independent Charge.

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5. Mallikarjun	Deputy Minister in the Ministry of Information and Broadcasting and in the Department of Parliamentary Afiairs
6. Vijay N. Patil	Deputy Minister in the Ministry of Communications
7. Janardhana Poojary . .	Deputy Minister in the Ministry of Finance
8. M. S. Sanjeevi Rao . . .	Deputy Minister in the Department of Electronics
9. P. A. Sangma	Deputy Minister in the Ministry of Commerce
10. Digvijay Sinh	Deputy Minister in the Department of Environment
11. P. K. Thungon	Deputy Minister in the Ministries of Education and Culture and Social Welfare

MEMBERS OF PARLIAMENT

RAJYA SABHA (COUNCIL OF STATES)

(As on 19 April 1983)

Chairman : M. Hidayatullah

Deputy Chairman : Shyam Lal Yadav

Andhra Pradesh (18)

1. Syed Rahmat Ali
2. P. Babul Reddy
3. Rayapati Samba Siva Rao
4. Krishna Mohan Bhamidipati
5. V. C. Kesava Rao
6. Adinarayana Reddy
7. A. S. Chowdhari
8. K. L. N. Prasad
9. Prof B. Ramachandra Rao
10. Smt. Roda Mistry
11. S. B. Ramesh Babu
12. G. Swamy Naik
13. K. V. R. S. Bala Subba Rao
14. Ghouse Mohiuddin Sheikh
15. N. P. Chengalraya Naidu
16. Buddha Priya Maurya
17. T. Chandra Sekara Reddy
18. B. Satyanarayana Reddy

Assam (7)

19. Biswa Goswami
20. Vacant
21. Vacant
22. Bijoy Krishna Handique
23. Ajit Kumar Sharma
24. Robin Kakati
25. Dinesh Goswami

Bihar (22)

26. Ashwani Kumar
27. Jagdambi Prasad Yadav
28. Ramchandra Bharadwaj
29. Syed Shahabuddin
30. Dr. Mahabir Prasad
31. Indradeep Sinha
32. Suraj Prasad
33. Rafique Alam
34. Sitaram Kesri
35. Smt. Manorama Pandey
36. Ramanand Yadav
37. Bhishma Narain Singh
38. Smt. Pratibha Singh
39. Ram Bhagat Paswan
40. Yogendra Sharma
41. Mahendra Mohan Mishra
42. Ram Lakhan Prasad Gupta
43. Chandan K. Bagchi
44. Dayanand Sahaya
45. Hukmdeo Narayan Yadav
46. J. K. P. N. Singh
47. Shiva Chandra Jha

Gujarat (11)

48. Yogendra Makwana
49. Ramsingbhai Pataliyabhai Rathvakoli
50. Smt. Kumudben Manishankar Joshi
51. Harisinh Bhagubava Mahida
52. Ibrahim Kalaniya
53. Pranab Mukherjee
54. Kishor Mehta
55. Vithalbhai Motiram Patel
56. Mirza Irshadbaig Aiyubbaig
57. Manubhai Patel
58. Ghanshyambhai Oza

Haryana (5)

59. Sushil Chand Mohunta
60. Hari Singh Nalwa
61. Chand Ram
62. Sultan Singh
63. Dr. Sarup Singh

Himachal Pradesh (3)

64. Roshan Lal
65. Smt. Usha Malhotra
66. Smt. Mohinder Kaur

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Jammu and Kashmir (4)

67. Dharam Chander Prashant
68. Sharief-ud-Din Shariq
69. Gulam Mohi-ud-Din Shawl
70. Ghulam Rosool Matto

Karnataka (12)

71. Smt. Monika Das
72. H. Hanumanthappa
73. Veershetty Moglappa Kushnoor
74. M. Rajagopal
75. Smt. Margaret Alva
76. Maqsood Ali Khan
77. B. Ibrahim
78. F. M. Khan
79. M. Maddanna
80. M. Basavaraju
81. Ramakrishna Hegde
82. Satchidananda

Kerala (9)

83. C. Haridas
84. K. C. Sabastian
85. O. J. Joseph
86. K. Chathunni Master
87. B. V. Abdulla Koya
88. T. Basheer
89. K. Gopalan
90. M. M. Jacob
91. K. Mohanan

Madhya Pradesh (16)

92. Nand Kishore Bhatt
93. J. K. Jain
94. Shrikant Verma
95. Radhakishan Malaviya
96. Smt. Maimoona Sultan
97. Smt. Ratan Kumari
98. Pyarelal Khandelwal
99. Hansraj Bhardwaj
100. Keshavprasad Shukla
101. Pravin Kumar Prajapati
102. Baleshwar Dayal
103. Ladli Mohan Nigam
104. Smt. Vijaya Raje Scindia
105. Dr. Bhai Mahavir
106. Bhagatram Manhar
107. Lal K. Advani

Maharashtra (19)

108. Jagannath Sitaram Akarte
109. S. W. Dhabe
110. Murlidhar Chandrakant Bhandare
111. Vishvajit Prithvijit Singh
112. Dinkarrao Govindrao Patil
113. Smt. Premilabai Dajisaheb Chavan
114. Smt. Saroj Khaparde
115. Dr. Shanti G. Patel
116. Smt. Sushila Shankar Adivarekar
117. Dr. Joseph Leon D'Souza
118. Dr. (Smt.) Najma Heptulla
119. Vithalrao Madhavrao Jadhav
120. A. G. Kulkarni
121. B. D. Khobragade
122. Dr. Rafiq Zakaria
123. N. K. P. Salve
124. Ganapat Hiralal Bhagat
125. Sadashiv Bagaitkar
126. Suresh Kalmadi

Manipur (1)

127. Ng. Tompok Singh

Meghalaya (1)

128. Alexander Warjri

Nagaland (1)

129. T. Aliba Imti

Orissa (10)

130. Banamali Babu
131. Gaya Chand Bhuyan
132. Santosh Kumar Sahu
133. Akshay Panda
134. Jagdish Jani
135. Shyam Sundar Mohapatra
136. Dhaneshwar Majhi
137. B. C. Pattanayak
138. Surendra Mohanty
139. Harekrushna Mallick

Punjab (7)

140. Harvendar Singh Hanspal
141. Smt. Amarjit Kaur
142. Sat Paul Mittal
143. Jagdev Singh Talwandi
144. Gurcharan Singh Tohra
145. Harkishan Singh Surjeet
146. Dr. (Smt.) Rajinder Kaur

Rajasthan (10)

147. Dhuleshwar Meena
148. Bhuvnesh Chaturvedi
149. Natha Singh
150. Mohammed Usman Arif
151. Ram Niwas Mirdha
152. Jaswant Singh
153. Molana Asrarul Haq
154. Hari Shankar Bhabhra
155. Bhim Raj
156. R. R. Morarka

Sikkim (1)

157. Leonard Soloman Saring

Tamil Nadu (18)

158. U. R. Krishnan
159. Murasoli Maran
160. L. Ganesan
161. M. Kalyanasundaram
162. P. Ramamurti
163. R. Mohanarangam

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164. A.P. Janardhanam
165. G. K. Moopanar
166. R. Ramakrishnan
167. Smt. Noorjehan Razack
168. D. Heerachand
169. M. S. Ramachandran
170. P. Anbalgan
171. V. Gopalsamy
172. Dr. (Smt.) Sathiavani Muthu
173. Era Sezhiyan
174. M. Moses
175. V. Venka

Tripura (1)

176. Smt. Ila Bhattacharya

Uttar Pradesh (34)

177. Dr. M. M. S. Siddhu
178. Krishna Nand Joshi
179. Kalpnath Rai
180. Dharmavir
181. Shyam Lal Yadav
182. Piare Lall Kureel *urf* Piare Lall Talib Unnavi
183. Smt. Krishna Kaul
184. Satya Pal Malik
185. Asad Madani
186. Bishambhar Nath Pande
187. Ghan Shyam Singh
188. J. P. Goyal
189. Ram Naresh
190. Shanti Tyagi
191. Dr. Sankata Prasad
192. Sudhakar Pandey
193. Chowdhary Ram Sewak
194. Syed Sibtey Razi
195. Abdul Remhan Sheikh
196. Kalraj Mishra
197. K. C. Pant
198. Jagdish Prasad Mathur
199. G. C. Bhattacharya
200. Rameshwar Singh
201. Lakhan Singh
202. Surendra Mohan
203. Ram Pujan Patel
204. Narendra Singh
205. Dr. Rudra Pratap Singh
206. Khurshed Alam Khan
207. Srabdev Prasad
208. Hashim Raza Abidi Allahabadi
209. P. N. Sukul
210. Syed Ahmed Hashmi

West Bengal (16)

211. Sukomal Sen
212. Sankar Prasad Mitra
213. Kalyan Roy
214. Sangdopal Lepcha
215. Nepaldev Bhattacharjee
216. Dipen Ghosh
217. Arabinda Ghosh
218. Nirmal Chatterjee
219. Ramkrishna Mazumder
220. Debendra Nath Barman
221. Santosh Mitra
222. Makhan Paul
223. Amarprosad Chakraborty
224. Smt. Kanak Mukherjee
225. Syed Shahedullah
226. Prof. Sourendra Bhattacharjee

Arunachal Pradesh (1)

227. Ratan Tama

Delhi (3)

228. Vacant
229. Jagannathrao Joshi
230. Vacant

Mizoram (1)

231. Lalsawia

Pondicherry (1)

232. V. P. Samy

Nominated by the President (12)

233. Hayat Ulla Ansari
234. Madan Bhatia
235. Smt. Maragathem Chandra Sekhar
236. Dr. Lokesh Chandra
237. V. N. Tiwari
238. Khushwant Singh
239. Scato Swu
240. Prof. (Mrs.) Asima Chatterjee
241. Smt. Fathema Ismail
242. Dr. Malcolm S. Adiseshiah
243. V. C. Ganesan
244. Pandurang Dhar

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LOK SABHA (HOUSE OF THE PEOPLE)

(As on 7 April 1983)

Speaker : Bal Ram Jakhar

Deputy Speaker : G. Lakshmanan

Sl. No.	Constituency	Name of the Member	Party
	Andhra Pradesh (42)		
1.	Adilabad	G. Narsimha Reddy	Cong. (I)
2.	Amalapuram (R)	Kusuma Krishna Murthy	Cong. (I)
3.	Anakapalli	S.R.A.S. Appalanaidu	Cong. (I)
4.	Anantapur	Darur Pullaiah	Cong. (I)
5.	Bapatla	P. Ankineedu Prasadarao	Cong. (I)
6.	Bhadrachalam (R)	Smt. B. Radhabai Ananda Rao	Cong. (I)
7.	Bobbili	P. V. G. Raju	Cong. (I)
8.	Chittoor	P. Rajagopal Naidu	Cong. (I)
9.	Cuddapah	K. Obul Reddy	Cong. (I)
10.	Eluru	Chitturi Subba Rao Chowdhary	Cong. (I)
11.	Guntur	Prof. N. G. Ranga	Cong. (I)
12.	Hanamkonda	P. V. Narasimha Rao	Cong. (I)
13.	Hindupur	P. Bayapa Reddy	Cong. (I)
14.	Hyderabad	K. S. Narayana	Cong. (I)
15.	Kakinada	M.S. Sanjeevi Rao	Cong. (I)
16.	Karimnagar	M. Satyanarayana Rao	Cong. (I)
17.	Khammam	Jalagam Kondala Rao	Cong. (I)
18.	Kurnool	K. Vijaya Bhaskara Reddy	Cong. (I)
19.	Machilipatnam	M. Ankineedu	Cong. (I)
20.	Mahbubnagar	Mallikarjun	Cong. (I)
21.	Medak	Smt. Indira Gandhi	Cong. (I)
22.	Miryalguda	G. S. Reddi	Cong. (I)
23.	Nagar Kurnool (R)	Anantha Ramulu Mallu	Cong. (I)
24.	Nalgonda	T. Damodar Reddy	Cong. (I)
25.	Nandyal	P. Venkatasubbaiah	Cong. (I)
26.	Narasapur	Alluri Subash Chandra Bose	Cong. (I)
27.	Narasaraopet	K. Brahmananda Reddy	Cong. (I)
28.	Nellore (R)	P. Penchalaiah	UA
29.	Nizamabad	M. Ramgopal Reddy	Cong. (I)
30.	Ongole	P. Venkata Reddy	Cong. (I)
31.	Parvathipuram (R)	V. Kishore Chandra S. Deo	Cong. (S)
32.	Peddapalli (R)	Vacant	
33.	Rajahmundry	S. B. P. Pattabhi Rama Rao	Cong. (I)
34.	Rajampet	P. Parthasarathy	Cong. (I)
35.	Secunderabad	P. Shiv Shanker	Cong. (I)
36.	Siddipet (R)	Nandi Yellaiah	Cong. (I)
37.	Srikakulam	Rajagopalarao Boddepalli	Cong. (I)
38.	Tenali	M. Nageswararao	Cong. (I)
39.	Tirupathi (R)	Pasala Penchalaiah	Cong. (I)
40.	Vijayawada	Smt. Vidya Chennupati	Cong. (I)
41.	Visakhapatnam	K. A. Swami	Cong. (I)
42.	Warangal	Kamaluddin Ahmed	Cong. (I)
	Assam (14)		
43.	Autonomous Districts (R)	Biren Singh Engti	Cong. (I)
44.	Barpeta	Vacant	
45.	Dhubri	Nurul Islam	Cong. (I)

The abbreviations used are Congress Party (I) (Cong. (I)), Communist Party of India (Marxist) (CPI (M), Lok Dal (LD), Janata Party (Janata), Bharatiya Janata Party (BJP), Dravida Munnetra Kazhagam (DMK), Communist Party of India (CPI), Democratic Socialist Party (DSP), Congress Party (Socialist) (Congress (S), Revolutionary Socialist Party (RSP), All India Anna Dravida Munnetra Kazhagam (AIADMK), Forward Bloc (FB), Muslim League (ML), Congress Party (J) (Congress (J), Janavadi Party (Janavadi), Unattached (UA), Reserved Seats (R).

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Sl. No.	Constituency	Name of the Member	Party
46.	Dibrugarh	Vacant	
47.	Gauhati	Bhubaneswar Bhuyan	Cong. (I)
48.	Jorhat	Tarun Gogoi	Cong. (I)
49.	Kaliabor	Bishnu Prasad	Cong. (I)
50.	Karimganj (R)	Nihar Ranjan Laskar	Cong. (I)
51.	Kokrajhar (R)	Vacant	
52.	Lakhimpur	Vacant	
53.	Mangaldoi	Vacant	
54.	Nowgong	Vacant	
55.	Silchar	Santosh Mohan Dev	Cong. (I)
56.	Tezpur	Vacant	
	Bihar (54)		
57.	Araria (R)	D. L. Baitha	Cong. (I)
58.	Arrah	Chandradeo Prasad Verma	Janata
59.	Aurangabad	Satyendra Narain Sinha	Janata
60.	Bagaha (R)	Bhola Raut	Cong. (I)
61.	Balia	Surya Narayan Singh	CPI
62.	Banka	Chandra Shekhar Singh	Cong. (I)
63.	Barh	Dharam Bir Sinha	Cong. (S)
64.	Begusarai	Smt. Krishna Sahi	Cong. (I)
65.	Bettiah	Vacant	
66.	Bhagalpur	Bhagwat Jha Azad	Cong. (I)
67.	Bikramganj	Tapeshwar Singh	Cong. (I)
68.	Buxar	Prof. K. K. Tewari	Cong. (I)
69.	Chapra	Prof. Satya Deo Singh	Cong. (I)
70.	Chatra	Ranjit Singh	Cong. (I)
71.	Darbhanga	Hari Nath Mishra	Cong. (I)
72.	Dhanbad	A. K. Roy	UA
73.	Dumka (R)	Shibhu Soren	UA
74.	Gaya (R)	Ram Swarup Ram	Cong. (I)
75.	Giridih	Bindeshwari Dubey	Cong. (I)
76.	Godda	Saminuddin	Cong. (I)
77.	Gopalganj	Nagina Rai	Cong. (I)
78.	Hajipur (R)	Ram Vilas Paswan	Janata
79.	Hazaribagh	Dr. B. N. Singh	Cong. (I)
80.	Jamshedpur	R. P. Sarangi	BJP
81.	Jahanabad	Mahendra Prasad	Cong. (I)
82.	Jhanjharpur	Dhanik Lal Mandal	Janata
83.	Katihar	Tariq Anwar	Cong. (I)
84.	Khagaria	Satish Prasad Singh	Cong. (I)
85.	Khunti (R)	N. E. Horo	UA
86.	Kishanganj	Jamilur Rehman	Cong. (I)
87.	Kodarma	R. L. P. Verma	BJP
88.	Lohardaga (R)	Smt. Sumati Oraon	Cong. (I)
89.	Madhepura	R. P. Yadav	Cong. (S)
90.	Madhubani	Bhogendra Jha	CPI
91.	Maharajganj	Krishan Pratap Singh	Cong. (I)
92.	Monghyr	D. P. Yadav	Cong. (I)
93.	Motihari	K. M. Madhukar	CPI
94.	Muzaffarpur	George Fernandes	Janata
95.	Nalanda	Vijay Kumar Yadav	CPI
96.	Nawada (R)	Kunwar Ram	Cong. (I)
97.	Palamau (R)	Km. Kamla Kumari	Cong (I)
98.	Patna	Ramavtar Shastri	CPI
99.	Purnea	Smt. Madhuri Singh	Cong. (I)
100.	Rajmahal (R)	Seth Hembram	Cong. (I)
101.	Ranchi	Shiv Prasad Sahu	Cong. (I)
102.	Rosera (R)	Baleshwar Ram	Cong. (I)
103.	Saharsa	Kamal Nath Jha	Cong. (I)
104.	Samastipur	Prof. Ajit Kumar Mehta	Janata
105.	Sasaram (R)	Jagjivan Ram	Cong. (J)
106.	Sheohar	Smt. Ramdulari Sinha	Cong. (I)
107.	Singhbhum (R)	Bagun Sumbrui	Cong. (I)

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Sl. No.	Constituency	Name of the Member	Party
108.	Sitamarhi	B. R. Bhagat	Cong. (I)
109.	Siwan	Mohd. Yusuf	Cong. (I)
110.	Vaishali	Smt. Kishori Sinha	Janata
	Gujarat (26)		
111.	Ahmedabad	Maganbhai Barot	UA
112.	Amreli	Navin Ravani	Cong. (I)
113.	Anand	Ishvarbhai Khodabhai Chavda	Cong. (I)
114.	Banaskantha	Bheravadan K. Gadhavi	Cong. (I)
115.	Baroda	R. P. Gaekwad	Cong. (I)
116.	Bhavnagar	G. B. Gohil	Cong. (I)
117.	Broach	Ahmed Mohammed Patel	Cong. (I)
118.	Bulsar (R)	Uttambhai H. Patel	Cong. (I)
119.	Chhota Udaipur (R)	Amarsinh Rathawa	Cong. (I)
120.	Dhandhuka (R)	Narsinh Makwana	Cong. (I)
121.	Dohad (R)	Somjibhai Damor	Cong. (I)
122.	Gandhinagar	Amrit Patel	Cong. (I)
123.	Godhra	Jaideep Singh	Cong. (I)
124.	Jamnagar	Daulatsinhji Jadeja	Cong. (I)
125.	Junagadh	Mohanlal Patel	Cong. (I)
126.	Kaira	Ajitsinh Dabhi	Cong. (I)
127.	Kapadwanj	Natvarsinh Solanki	Cong. (I)
128.	Kutch	Dr. Mahipatray M. Mehta	UA
129.	Mandvi (R)	Chhitubhai Gamit	Cong. (I)
130.	Mehsana	Motibhai R. Chaudhari	Janata
131.	Patan (R)	Hiralal R. Parmar	Cong. (I)
132.	Porbandar	Vacant	
133.	Rajkot	Ramjibhai Mavani	Cong. (I)
134.	Sabarkantha	Shantubhai Patel	Cong. (I)
135.	Surat	C. D. Patel	Cong. (I)
136.	Surendranagar	Digvijay Sinh	Cong. (I)
	Haryana (10)		
137.	Ambala (R)	Suraj Bhan	BJP
138.	Bhiwani	Bansi Lal	Cong. (I)
139.	Faridabad	Tyyab Hussain	Cong. (I)
140.	Hissar	Mani Ram Bagri	LD
141.	Karnal	Chiranji Lal Sharma	Cong. (I)
142.	Kurukshetra	Manohar Lal Saini	Janata
143.	Mahendragarh	Rao Birendra Singh	Cong. (I)
144.	Rohtak	Swami Indervesh	LD
145.	Sirsa (R)	Dalbir Singh	Cong. (I)
146.	Sonepat	Vacant	
	Himachal Pradesh (4)		
147.	Hamirpur	Prof. Narain Chand Parashar	Cong. (I)
148.	Kangra	Vikram Mahajan	Cong. (I)
149.	Mandi	Virbhadra Singh	Cong. (I)
150.	Simla (R)	Krishan Datt Sultanpuri	Cong. (I)
	Jammu and Kashmir (6)		
151.	Anantnag	Ghulam Rasool Kochack	UA
152.	Baramulla	Vacant	
153.	Jammu	G. L. Dogra	Cong. (I)
154.	Ladakh	P. Namgyal	Cong. (I)
155.	Srinagar	Vacant	
156.	Udhampur	Dr. Karam Singh	UA

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Sl. No.	Constituency	Name of the Member	Party
	Karnataka (28)		
157.	Bagalkot	Veerendra Patil	Cong. (I)
158.	Bangalore North	C. K. Jaffer Sharief	Cong. (I)
159.	Bangalore South	T. R. Shamanna	Janata
160	Belgaum	S. B. Sidnal	Cong. (I)
161.	Bellary	R. Y. Ghorpade	Cong. (I)
162.	Bidar (R)	Narsing Suryawanshi	Cong. (I)
163.	Bijapur	K. B. Choudhari	Cong. (I)
164.	Chamarajanagar (R)	V. Sreenivasa Prasad	Cong. (I)
165.	Chikballapur	S. N. Prasan Kumar	Cong. (I)
166.	Chikkodi (R)	B. Shankaranand	Cong. (I)
167.	Chikmagalur	D. M. Putte Gowda	Cong. (I)
168.	Chitradurga	K. Mallanna	Cong. (I)
169.	Devangere	T. V. Chandrashekharappa	Cong. (I)
170.	Dharwad North	D. K. Naikar	Cong. (I)
171.	Dharwad South	F. H. Mohsin	Cong. (I)
172.	Gulbarga	C. M. Stephen	Cong. (I)
173.	Hassan	H. N. Gowda	Cong. (I)
174.	Kanakapura	M. V. Chandrashekara Murthy	Cong. (I)
175.	Kanara	G. Devaraya Naik	Cong. (I)
176.	Kolar (R)	G. Y. Krishnan	Cong. (I)
177.	Kappal	H. G. Ramulu	Cong. (I)
178.	Mandya	S. M. Krishna	Cong. (I)
179.	Mangalore	Janardhana Poojary	Cong. (I)
180.	Mysore	M. Rajeshekhara Murthy	Cong. (I)
181.	Raichur	B. V. Desai	Cong. (I)
182.	Shimoga	S. T. Quadri	Cong. (I)
183.	Tumkur	K. Lakkappa	Cong. (I)
184.	Udupi	Oscar Fernandes	Cong. (I)
	Kerala (20)		
185.	Adoor (R)	P. K. Kodiyan	CPI
186.	Alleppey	Smt. Suseela Gopalan	CPI (M)
187.	Badagara	K. P. Unnikrishnan	Cong. (S)
188.	Calicut	E. K. Inbichibava	CPI (M)
189.	Cannanore	K. Kunhambu	UA
190.	Chirajinkil	A. A. Rahim	Cong. (I)
191.	Ernakulam	Xavier Arakal	Cong.(I)
192.	Idukki	M.M. Lawrence	CPI(M)
193.	Kasaragod	M. Ramanna Rai	CPI(M)
194.	Kottayam	Skariah Thomas	UA
195.	Manjeri	Ebrahim Sulaiman Sait	ML
196.	Mavelikara	Prof. P.J. Kurien	Cong.(I)
197	Mukundapuram	E. Balanandan	CPI(M)
198.	Muvattupuzha	George Joseph Mundackal	UA
199.	Ottapalam (R)	A.K. Balan	CPI(M)
200.	Palghat	V.S. Vijaya Raghavan	Cong. (I)
201.	Ponnani	G.M. Banatwalla	ML
202.	Quilon	B.K. Nair	Cong.(I)
203.	Trichur	K.A. Rajan	CPI
204.	Trivandrum	A. Neelalohithadasan Nadar	DSP
	Madhya Pradesh (40)		
205.	Balaghat	Nand Kishore Sharma	Cong.(I)
206.	Bastar (R)	Laxman Karma	Cong.(I)
207.	Betul	Ghufran Azam	Cong.(I)
208.	Bhind	K.C. Sharma	Cong.(I)
209.	Bhopal	Dr. Shankar Dayal Sharma	Cong. (I)
210.	Bilaspur (R)	Godil Prasad Anuragi	Cong.(I)
211.	Chhindwara	Kamal Nath	Cong.(I)
212.	Damoh	Prabhunarain Tandon	Cong.(I)

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Sl. No.	Constituency	Name of the Member	Party
213.	Dhar (R)	Fatehbhan Singh Chouhan	Cong.(I)
214.	Durg	Chandulal Chandrakar	Cong.(I)
215.	Guna	Madhavrao Scindia	Cong.(I)
216.	Gwalior	N.K. Shejwalkar	BJP
217.	Hoshangabad	Rameshwar Nikhra	Cong.(I)
218.	Indore	P.C. Sethi	Cong.(I)
219.	Jabalpur	Baburao Paranjpe	BJP
220.	Janjgir	R.G. Tiwari	Cong.(I)
221.	Jhabua (R)	Dileep Singh Bhuria	Cong.(I)
222.	Kankar (R)	Arvind Netam	Cong.(I)
223.	Khajuraho	Smt. Vidyavati Chaturvedi	Cong.(I)
224.	Khandwa	Shivkumar Singh	Cong.(I)
225.	Khargone	Subhash Yadav	Cong.(I)
226.	Mahasamund	Vidya Charan Shukla	Cong.(I)
227.	Mandla (R)	Chhotelal Uike	Cong.(I)
228.	Mandsaur	B.R. Nahata	Cong.(I)
229.	Morena (R)	Babu Lal Solanki	Cong.(I)
230.	Raigarh (R)	Km. Pushpa Devi Singh	Cong.(I)
231.	Raipur	Keyur Bhushan	Cong.(I)
232.	Rajgarh	Dr. Vasant Kumar Pandit	BJP
233.	Rajnandgaon	Shivendra Bahadur Singh	Cong.(I)
234.	Rewa	Martand Singh	UA
235.	Sagar (R)	Ramprasad Ahirwar	BJP
236.	Sarangarh (R)	Parasram Bharadwaj	Cong.(I)
237.	Satna	Gulsher Ahmed	Cong.(I)
238.	Seoni	Gargi Shankar Mishra	Cong. (I)
239.	Shahdol (R)	Dalbir Singh	Cong.(I)
240.	Shajapur (R)	Phool Chand Verma	BJP
241.	Sidhi (R)	Motilal Singh	Cong.(I)
242.	Surguja (R)	Chakradhari Singh	Cong.(I)
243.	Ujjain (R)	Satyanarayan Jatiya	BJP
244.	Vidisha	Pratap Bhanu Sharma	Cong.(I)
	Maharashtra (48)		
245.	Ahmednagar	Chandrabhan Athare Patil	Cong.(I)
246.	Akola	Madhusudan Vairale	Cong.(I)
247.	Amravati	Smt. Usha Prakash Choudhari	Cong.(I)
248.	Aurangabad	Qazi Saleem	Cong. (I)
249.	Baramati	Shankarrao Patil	Cong.(I)
250.	Bhandara	Kesharao Pardhi	Cong.(I)
251.	Bhir	Smt. Kesharbai Kshirsagar	Cong.(I)
252.	Bombay North	Ravindra Varma	Janata
253.	Bombay North Central	Smt. Pramila Dandavate	Janata
254.	Bombay North East	Dr. Subramaniam Swamy	Janata
255.	Bombay North West	Ram Jethmalani	BJP
256.	Bombay South	Ratansinh Rajda	Janata
257.	Bombay South Central	R. R. Bhole	Cong.(I)
258.	Buldhana (R)	Balkrishna Ramachandra Wasnik	Cong.(I)
259.	Chandrapur	Shantaram Potdukhe	Cong.(I)
260.	Chimur	Vilas Muttemwar	Cong.(I)
261.	Dahanu (R)	D.B. Shingda	Cong.(I)
262.	Dhule (R)	Reshma Motiram Bhoye	Cong.(I)
263.	Erandol	Vijay N. Patil	Cong.(I)
264.	Hingoli	Uttam Rathod	Cong.(I)
265.	Ichalkaranji	R.S. Mane	Cong.(I)
266.	Jalgaon	Y.S. Mahajan	Cong.(I)
267.	Jalna	Balasaheb Pawar	Cong.(I)
268.	Karad	Yashwantrao Mohite	Cong.(I)
269.	Khed	Ramkrishna More	Cong.(I)
270.	Kulaba	A.T. Patil	Cong.(I)
271.	Kolhapur	Udaysingrao Gaikwad	Cong.(I)
272.	Kopargaon	Balasaheb Vikhe Patil	Cong.(I)
273.	Latur	Shivraj V. Patil	Cong.(I)
274.	Malegaon (R)	Z. M. Kahandole	Cong.(I)

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Sl. No.	Constituency	Name of the Member	Party
275.	Nagpur	Jambuwant Dhote	Cong.(I)
276.	Nanded	S.B. Chavan	Cong.(I)
277.	Nandurbar (R)	Manikrao Hodlya Gavit	Cong.(I)
278.	Nasik	Dr. Pratap Wagh	Cong.(I)
279.	Osmanabad (R)	T.M. Sawant	Cong.(I)
280.	Pandharpur (R)	Bhausaheb Thorat	Cong.(I)
281.	Parbhani	R.N. Yadav	Cong.(I)
282.	Pune	V.N. Gadgil	Cong.(I)
283.	Rajapur	Prof. Madhu Dandavate	Janata
284.	Ramtek	J.C. Barve	Cong.(I)
285.	Ratnagiri	Bapusaheb Parulekar	Janata
286.	Sangli	Vasantrao Patil	Cong.(I)
287.	Satara	Y.B. Chavan	Cong.(I)
288.	Sholapur	Gangadhar S. Kuchan	Cong. (I)
289.	Thane	J.S. Patil	BJP
290.	Wardha	Vasant Sathe	Cong.(I)
291.	Washim	Gulam Nabi Azad	Cong.(I)
292.	Yeotmal	Uttamrao Patil	
	Manipur (2)		
293.	Inner Manipur	Ngangom Mohendra	CPI
294.	Outer Manipur (R)	N. Gouzagin	Cong(I)
	Meghalaya (2)		
295.	Shillong	Bajubon R. Kharlukhi	UA
296.	Tura	P.A. Sangma	Cong.(I)
	Nagaland (1)		
297.	Nagaland	Chingwang Konya	Cong.(I)
	Orissa (21)		
298.	Aska	Rama Chandra Rath	Cong.(I)
299.	Balasore	Chintamani Jena	Cong.(I)
300.	Berhampur	Jagannath Rao	Cong.(I)
301.	Bhadrak (R)	Arjun Sethi	Cong.(I)
302.	Bhubaneswar	Chintamani Panigrahi	Cong.(I)
303.	Bolangir	Nityananda Misra	Cong.(I)
304.	Cuttack	Smt. Jayanti Patnaik	Cong. (I)
305.	Deogarh	Narayan Sahu	Cong(I)
306.	Dhenkanal	K.P. Singh Deo	Cong.(I)
307.	Jagatsinghpur	Lakshman Mallick	Cong.(I)
308.	Jajpur (R)	A.C. Das	Cong.(I)
309.	Kalahandi	Rasa Behari Behra	Cong.(I)
310.	Kendrapara	Biju Patnaik	Janata
311.	Keonjhar (R)	Harihar Soren	Cong.(I)
312.	Koraput (R)	Giridhar Gomango	Cong.(I)
313.	Mayurbhanj (R)	Manmohan Tudu	Cong.(I)
314.	Nowrangpur (R)	K. Pradhani	Cong.(I)
315.	Phulbani (R)	Mrutyunjaya Nayak	Cong.(I)
316.	Puri	Braji Mohan Mohanty	Cong. (I)
317.	Sambalpur	Dr. Krupasindhu Bhoi	Cong.(I)
318.	Sundargarh (R)	Christopher Ekka	Cong.(I)
	Punjab (13)		
319.	Amritsar	R.L. Bhatia	Cong.(I)
320.	Bhatinda (R)	Hakam Singh	Cong.(I)
321.	Faridkot	Smt. Gurbrinder Kaur Brar	Cong.(I)
322.	Firozepur	Bal Ram Jakhar	
323.	Gurdaspur	Smt. Sukhbuns Kaur	Cong.(I)

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Sl. No.	Constituency	Name of the Member	Party
324.	Hoshiarpur	Vacant	
325.	Jullundur	R.S. Sparrow	Cong.(I)
326.	Ludhiana	Devinder Singh Garcha	Cong.(I)
327.	Patiala	Amarender Singh	Cong.(I)
328.	Phillaur (R)	Sunder Singh	Cong.(I)
329.	Ropar (R)	Buta Singh	Cong.(I)
330.	Sangrur	G.S. Nihalsinghwala	Cong.(I)
331.	Tarn Taran	L.S. Tur	UA
	Rajasthan (25)		
332.	Ajmer	Acharya Bhagwan Dev	Cong.(I)
333.	Alwar	Ram Singh Yadav	Cong. (I)
334.	Banswara (R)	Bheekhabhai	Cong.(I)
335.	Barmer	Virdhi Chander Jain	Cong.(I)
336.	Bayana (R)	Lala Ram Ken	Cong.(I)
337.	Bharatpur	Rajesh Pilot	Cong.(I)
338.	Bhilwara	Girdhari Lal Vyas	Cong.(I)
339.	Bikaner	Manphool Singh Chaudhary	Cong.(I)
340.	Chittorgarh	Prof. Nirmala Kumari Shaktawat	Cong.(I)
341.	Churu	Daulat Ram Saran	LD
342.	Dausa	Nawal Kishore Sharma	Cong.(I)
343.	Ganganagar (R)	Bir Bal	Cong.(I)
344.	Jaipur	Satish Agarwal	BJP
345.	Jalore (R)	Virda Ram Phulwariya	Cong.(I)
346.	Jhalawar	Chaturbhuj	BJP
347.	Jhunjhunu	Bhim Singh	Janata
348.	Jodhpur	Ashok Gehlot	Cong.(I)
349.	Kota	Krishna Kumar Goyal	BJP
350.	Nagaur	Nathu Ram Mirdha	Cong.(S)
351.	Pali	Mool Chand Daga	Cong.(I)
352.	Salumber (R)	Jai Narayan Roat	Cong. (I)
353.	Sawai Madhopur (R)	Ram Kumar Meena	Cong.(I)
354.	Sikar	Kumbha Ram Arya	Janata
355.	Tonk (R)	Banwari Lal	Cong. (I)
356.	Udaipur	Deen Bandhu Verma	Cong.(I)
	Sikkim (1)		
357.	Sikkim	P.M. Subba	Cong.(I)
	Tamil Nadu (39)		
358.	Arrakonam	A.M. Velu	Cong.(I)
359.	Chengalpattu	Era Anbarasu	Cong.(I)
360.	Chidambaram (R)	Dr. V. Kulandaivelu	DMK
361.	Coimbatore	Era Mohan	DMK
362.	Cuddalore	R. Muthu Kumaran	Cong.(I)
363.	Dharmapuri	K. Arjunan	DMK
364.	Dindigul	K. Mayathevar	DMK
365.	Gobichettipalayam	C. Chinnaswamy	AIADMK
366.	Karur	S.A. Dorai Sebastian	Cong.(I)
367.	Krishnagiri	K. Ramamurthy	Cong.(I)
368.	Madras Central	Dr. A. Kalanidhi	DMK
369.	Madras North	G. Lakshmanan	DMK
370.	Madras South	R. Venkataraman	Cong.(I)
371.	Madurai	A.G. Subburaman	Cong.(I)
372.	Mayuram	N. Kudanthai Ramalingam	Cong.(I)
373.	Nagapattinam (R)	Thazhai M. Karunanidhi	DMK
374.	Nagercoil	N. Dennis	Cong.(I)
375.	Nilgiris	R. Prabhu	Cong.(I)
376.	Palani	A. Senapathi Gounder	Cong.(I)
377.	Perambalur (R)	K.B.S. Mani	Cong.(I)
378.	Periyakulam	S.T.K. Jakkayan	AIADMK
379.	Pollachi (R)	C.T. Dhandapani	DMK
380.	Pudukottai	V.N. Swaminathan	Cong. (I)

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381.	Ramanathapuram	M.S.K. Sathiyendran	DMK
382.	Rasipuram (R)	B. Devarajan	Cong.(I)
383.	Salem	C. Palaniappan	DMK
384.	Sivaganga	R.V. Swaminathan	Cong. (I)
385.	Sivakasi	N. Soundararajan	AIADMK
386.	Sriperumbudur (R)	T. Nagaratnam	DMK
387.	Tenkasi (R)	M. Arunachalam	Cong. (I)
388.	Thanjavur	S. Singaravadeival	Cong.(I)
389.	Tindivanam	S.S. Ramaswamy Padayachi	Cong.(I)
390.	Tiruchendur	K.T. Kosalram	Cong.(I)
391.	Tiruchengode	M. Kandaswamy	DMK
392.	Tiruchirapalli	N. Selvaraju	DMK
393.	Tirunelveli	D.S.A. Sivaprakasam	DMK
394.	Tirupattur	S. Murugain	DMK
395.	Vandavasi	D. Pattuswamy	Cong.(I)
396.	Vellore	Abdul Samad	ML
	Tripura (2)		
397.	Tripura East (R)	Baju Ban Riyan	CPI(M)
398.	Tripura West	Ajoy Biswas	CPI(M)
	Uttar Pradesh (85)		
399.	Agra	Nihal Singh Jain	Cong.(I)
400.	Akabarpur (R)	Ram Awadh	LD
401.	Aligarh	Smt. Indra Kumari	LD
402.	Allahabad	Krishna Prakash Tiwari	Cong. (I)
403.	Almora	Harish Rawat	Cong.(I)
404.	Amethi	Rajiv Gandhi	Cong.(I)
405.	Amroha	Chander Pal Singh	LD
406.	Aonla	Jaipal Singh Kashyap	LD
407.	Azamgarh	Chandrajit Yadav	Janavadi
408.	Badaun	Mohd Asrar Ahmad	Cong.(I)
409.	Baghpat	Charan Singh	LD
410.	Bahraich	Muzaffar Hussain	Cong.(I)
411.	Ballia	Chandra Shekhar	Janata
412.	Balrampur	Chandra Bhal Mani Tewari	Cong.(I)
413.	Banda	Ramnath Dubey	Cong.(I)
414.	Bansgaon (R)	Mahabir Prasad	Cong.(I)
415.	Barabanki (R)	Ram Kinkar	LD
416.	Bareilly	Begum Abida Ahmed	Cong.(I)
417.	Basti (R)	Kalapnath Sonkar	UA
418.	Bijnor (R)	Mangal Ram Premi	LD
419.	Bilhaur	R.N. Tripathi	Cong.(I)
420.	Bulandshahar	Vacant	
421.	Chail (R)	R.N. Rakesh	DSP
422.	Chandauli	Nihal Singh	Cong.(J)
423.	Deoria	Ramayan Rai	Cong.(I)
424.	Domariaganj	Jalil Abbasi	Cong.(I)
425.	Etah	M.M.A. Khan	Cong.(I)
426.	Etawah	Ram Singh Shakya	LD
427.	Faizabad	Jai Ram Varma	Cong. (I)
428.	Farrukhabad	Daya Ram Shakya	BJP
429.	Fatehpur	Hari Krishna Shastri	Cong.(I)
430.	Firozabad (R)	Rajesh Kumar Singh	LD
431.	Garhwal	H.N. Bahuguna	DSP
432.	Ghatampur (R)	Ashkaran Sankhwar	Cong. (I)
433.	Ghazipur	Zainul Basher	Cong.(I)
434.	Ghosi	Jharkhande Rai	CPI
435.	Gonda	Anand Singh	Cong.(I)
436.	Gorakhpur	Harikesh Bahadur	DSP
437.	Hamirpur	Doongar Singh	Cong.(I)
438.	Hapur	Anwar Ahmad	Cong.(I)
439.	Hardoi (R)	Manni Lal	Cong.(I)

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Sl. No.	Constituency	Name of the Member	Party
440.	Hardwar (R)	Jagpal Singh	LD
441.	Hathras (R)	Chandrapal Shailani	Cong.(I)
442.	Jalaun (R)	Nathu Ram Shakyawar	Cong.(I)
443.	Jalesar	Chaudhari Multan Singh	Janata
444.	Jaunpur	Dr. A.U. Azmi	LD
445.	Jhansi	Vishvanath Sharma	DSP
446.	Kairana	Smt. Gayatri Devi	LD
447.	Kaiserganj	Rana Vir Singh	Cong.(I)
448.	Kannauj	Chhotey Singh Yadav	LD
449.	Kanpur	Arif Mohammad Khan	Cong.(I)
450.	Khalilabad	Krishna Chandra Pandey	Cong.(I)
451.	Kheri	Smt. Usha Verma	Cong.(I)
452.	Khurja (R)	Trilok Chand	LD
453.	Lalganj (R)	Chhangur Ram	Janavadi
454.	Lucknow	Smt. Sheila Kaul	Cong. (I)
455.	Machhalishahar	Sheo Sharan Verma	LD
456.	Maharajganj	Ashfaq Husain	DSP
457.	Mainpuri	Raghunath Singh Verma	LD
458.	Mathura	Digambar Singh	LD
459.	Meerut	Smt. Mohsina Kidwai	Cong(I)
460.	Mirzapur	Uma Kant Mishra	Cong.(I)
461.	Misrikh (R)	Ram Lal Rahi	DSP
462.	Mohanlal Ganj (R)	Smt. Kailash Pati	Cong.(I)
463.	Moradabad	Ghulam Mohd Khan	LD
464.	Muzaffarnagar	Ghayoor Ali Khan	LD
465.	Nainital	Narayan Datt Tiwari	Cong. (I)
466.	Padrauna	C.P.N. Singh	Cong.(I)
467.	Phulpur	B.D. Singh	LD
468.	Pilibhit	Harish Kumar Gangwar	DSP
469.	Pratapgarh	Ajit Pratap Singh	Cong.(I)
470.	Rae Bareli	Arun Kumar Nehru	Cong.(I)
471.	Rampur	Zulfiquar Ali Khan	Cong.(I)
472.	Robertsganj (R)	Ram Pyare Panika	Cong.(I)
473.	Saharanpur	Rasheed Masood	LD
474.	Saidpur (R)	Rajnath Sonkar Shastri	LD
475.	Salempur	Ram Nagina Misra	Cong.(I)
476.	Sambal	Brijendra Pal Singh	Cong.(I)
477.	Shahabad	D.G. Singh	Cong.(I)
478.	Shahjahanpur	Jitendra Prasad	Cong.(I)
479.	Sitapur	Dr. Rajendra Kumari Bajpai	Cong.(I)
480.	Sultanpur	Giri Raj Singh	Cong.(I)
481.	Tehri Garhwal	T.S. Negi	DSP
482.	Unnao	Z.R. Ansari	Cong.(I)
483.	Varanasi	Kamalapati Tripathi	Cong.(I)
	West Bengal (42)		
484.	Alipurduars (R)	Piyush Tirkey	RSP
485.	Arambagh	Bijoy Modak	CPI(M)
486.	Asansol	Ananda Gopal Mukhopadhyay	Cong.(I)
487.	Balurghat (R)	Palas Barman	RSP
488.	Bankura	Basudeb Acharia	CPI(M)
489.	Barasat	Chitta Basu	FB
490.	Barrackpore	M. Ismail	CPI(M)
491.	Bashirhat	Indrajit Gupta	CPI
492.	Berhampore	Tridib Chaudhuri	RSP
493.	Birbhum (R)	Gadadhar Saha	CPI(M)
494.	Bolpur	Dr. Saradish Roy	CPI(M)
495.	Burdwan	Sushil Bhattacharya	CPI(M)
496.	Calcutta North East	Sunil Maitra	CPI(M)
497.	Calcutta North West	Ashoke Sen	Cong.(I)
498.	Calcutta South	Satyasadhan Chakraborty	CPI(M)
499.	Contai	Sudhir Kumar Giri	CPI(M)
500.	Cooch Behar (R)	Amar Roypradhan	FB
501.	Darjeeling	Ananda Pathak	CPI(M)
502.	Diamond Harbour	Amal Datta	CPI(M)

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Sl. No.	Constituency	Name of the Member	Party
503.	Dum Dum	Niren Ghosh	CPI(M)
504.	Durgapur (R)	Krishna Chandra Haldar	CPI(M)
505.	Hooghly	Prof. Rup Chand Pal	CPI(M)
506.	Howrah	Samar Mukherjee	CPI(M)
507.	Jadavpur	Somnath Chatterjee	CPI(M)
508.	Jalpaiguri	Subodh Sen	CPI(M)
509.	Jangipur	Zainal Abedin	CPI(M)
510.	Jhargram(R)	Matilal Hasda	CPI(M)
511.	Joynagar (R)	Sanat Kumar Mandal	RSP
512.	Katwa	Saifuddin Chowdhary	CPI(M)
513.	Krishnagar	R.P. Das	CPI(M)
514.	Malda	A.B.A. Ghani Khan Choudhury	Cong.(I)
515.	Mathurapur (R)	Nirmal Sinha	CPI(M)
516.	Midnapore	Narayan Choubey	CPI
517.	Murshidabad	Syed Masudal Hossain	CPI(M)
518.	Nabadwip(R)	Smt. Bibha Ghosh Goswami	CPI(M)
519.	Panskura	Smt. Geeta Mukherjee	CPI
520.	Purulia	Chitta Mahata	FB
521.	Raiganj	Dr. Golam Yazdani	Cong.(I)
522.	Serampore	Ajit Bag	CPI(M)
523.	Tamluk	Satyagopal Misra	CPI(M)
524.	Uluberia	Hannan Mollah	CPI(M)
525.	Bishnupur(R)	Ajit Kumar Saha	CPI(M)
		UNION TERRITORIES	
	Andaman and Nicobar Islands (1)		
526.	Andaman and Nicobar Islands	Manoranjan Bhakta	Cong.(I)
	Arunachal Pradesh (2)		
527.	ArunachalEast	Sobeng Tayeng	Cong.(I)
528.	Arunachal West	P.K. Thungan	Cong.(I)
	Chandigarh (1)		
529.	Chandigarh	Jagan Nath Kaushal	Cong.(I)
	Dadra and Nagar Haveli (1)		
530.	Dadra and Nagar Haveli(R)	R.P. Mahala	Cong.(I)
	Delhi (7)		
531.	East Delhi	H.K.L. Bhagat	Cong.(I)
532.	Chandni Chowk	Bhiku Ram Jain	Cong.(I)
533.	Delhi Sadar	Jagdish Tytler	Cong.(I)
534.	Karol Bagh (R)	Dharam Dass Shastri	Cong.(I)
535.	New Delhi	Atal Behari Vajpayee	BJP
536.	Outer Delhi	Sajjan Kumar	Cong.(I)
537.	South Delhi	Charanjit Singh	Cong.(I)
	Goa, Daman and Diu (2)		
538.	Mormugao	Eduardo Faleiro	Cong. (I)
539.	Panaji	Smt. Sanyogita Rane	Cong.(I)
	Lakshadweep(1)		
540.	Lakshadweep (R)	P.M. Sayeed	Cong.(I)
	Mizoram(1)		
541.	Mizoram	Dr. R. Rothuama	UA

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Sl. No.	Constituency	Name of the Member	Party
	Pondicherry (1)		
	Pondicherry . . .	P. Shanmugam	Cong.(I)
	Anglo-Indians (2)[1]		
543.		Frank Anthony	UA
544.		A.E.T. Barrow	UA

CIVILIAN AWARDS ANNOUNCED ON 26 JANUARY 1983[2]

Bharat Ratna . . . The award is made for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

Recipient . . . . Acharya Vinoba Bhave (Posthumous) (1895—1982)

Padma Vibhushan . . . The award is made for exceptional and distinguished service in any field including service rendered by government servants.

Recipient . . . . None.

Padma Bhushan . . . The award is made for distinguished service of high order in any field including service rendered by the government servants.

Recipient . . . . 1. Lt. General Adi Meherji Sethna
2. Prof. Arun Kumar Sharma
3. Benudhar Sharma (Posthumous)
4. Raja Bhalendra Singh
5. Prof. K. G. Ramanathan
6. K. Sankaran Nair
7. K.T. Satarwala
8. Dr. Nagendra
9. Prem Nazir
10. Sir Richard Attenborough
11. Dr. Singanellur Puttaswamaiah Muthuraj (Raj Kumar)
12. Dr. Subodh Chandra Sengupta
13. Lt. General Suraj Parkash Malhotra
14. Swraj Paul
15. Umrao Singh
16. V. Doreswamy Iyengar
17. Vishun Govid Jog

Padma Shri . . . . The award is made for distinguished service in any field including service rendered by government servants.

Recipients 53

GALLANTRY AWARDS—1982[3]

The following decorations for gallantry and distinguished service were awarded by the President during the period from 27th January 1982 to 26 January 1983 :

Kirti Chakra	7 (Three posthumous)
Shaurya Chakra	35 (six posthumous)
Sena Medal	42 (One posthumous)
Nao Sena Medal	14
Vayu Sena Medal	14
Param Vishisht Seva Medal	22
Ati Vishisht Seva Medal	48
Bar to Ati Vishisht Seva Medal . . .	1
Vishisht Seva Medal	107
Bar to Vishisht Seva Medal	1

1. Nominated by the President.
2. Appendix to Chapter 3.
3. Appendix to Chapter 4.

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SANGEET NATAK AKADEMI AWARDS—1982[1]

Fellowship

Mani Madhava Chakiar
Mallikarjun Mansoor

Awards

Hindustani Vocal	Vasantrao Deshpande
Hindustani Instrumental (Tabla)	Alla Rakha
Karnatak Vocal	T.M. Thiagarajan
Karnatak Instrumental (Violin)	M. S. Gopalakrishnan
Creative Music	Vijay Raghav Rao
Sufiana Kalam	Ghulam Mohammed Qalinbaf
Folk Music	R. Rama Subba Kaniyar (Kaniyar-koothu).
Dance Gurus	Smt. L. Tombi Devi (Manipuri) Kartik Ram (Kathak)
Dance Practitioners	Smt. Vyjayanthimala Bali (Bharatnatyam) Smt. Kumudini Lakhia (Kathak)
Folk and Traditional Dance	Gambhir Singh Mura (Purulia Chhau) T.C. Sundaramoorthy
Playwriting	M. G. Rangnekar (Marathi)
Production/Direction	Smt. Sheila Bhatia
Acting	Manohar Singh

SAHITYA AKADEMI AWARDS—1982

Language	Book	Author
1. Assamese	*Mamare Dhare Tarowal Aru Dukhan Upanyasa*((Novel)	Mamoni Raiason Goswami
2. Bengali	*Amritasya Putree* (Novel)	Kamal Das
3. Dogri	*Qaidi* (Novel)	Deshbhandhu Dogra *Nutan*
4. English	*The Last Labyrinth* (Novel)	Arun Joshi
5. Gujarati	*Lilero Dhal* (Poetry)	Priyakant Maniar
6. Hindi	*Viklang Shraddha Ka Daur* (Satire)	Hari Shankar Parsai
7. Kannada	*Vyshakha* (Novel)	Chaduranga
8. Kashmiri	*Natak Truche* (Drama)	Motilal Kemmu
9. Konkani	*Khabari* (Essays)	Laxmanrao Sardesai
10. Maithili	*Marichika* (Novel)	Lila Ray
11. Malayalam	*Payyankathakal* (Short Stories)	V.K.N. (Thiruvilvamala)
12. Manipuri	*Pistal Ama Kundallei Ama* (Short Stories)	E. Dinamani Singh
13. Marathi	*Saundaryanubhav* (Literary Criti-cism)	Prabhakar Padhye
14. Nepali	*Bisirayako Sanskriti* (Essays)	M.M. Gurung
15. Oriya	*Hasyarasar Natak*(One Act Plays)	Gopal Chhotrai
16. Punjabi	*Amar Katha* (Short Stories)	Gulzar Singh Sandhu
17. Rajasthani	*Chasmadith Gawah* (Short Stories)	Moolchand *Pranesh*
18. Sanskrit	*Visvabhanu* (Epic)	P.K. Narayana Pillai
19. Sindhi	*Muhinji Hayatia-ja-Sona Ropa Warqa* (Autobiography)	Popati Hiranandani
20. Tamil	*Manikkodik Kalam* (Literary History)	B.S. Ramaiah
21. Telugu	*Swarna Kamalaalu* (Short Stories)	I. Saraswati Devi
22. Urdu	*Zikr-O Fikr* (Literary Criticism)	Gian Chand Jain

1. Appendix to Chapter 6.

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BIBLIOGRAPHY

The bibliography is meant to serve as guide to further reading on the subject covered in the Annual.

1. LAND AND THE PEOPLE

BHATTACHARJEE, P. J. *etc.* — *Population of India*, New Delhi, Vikas, 1976.

CHOPRA, P. N. *ed.* — *Religions and Communities of India*, New Delhi, Vision, 1982.

INDIA, REGISTRAR GENERAL — *Vital Statistics of India*, 1977, Delhi, the author, 1982.

INDIA, REGISTRAR GENERAL AND CENSUS COMMISSIONER — *Census of India*, 1971; *Final Population—Series* 1 *Paper* 1 *of* 1972, Delhi, Manager of Publications, 1972.

—Do— — *Census of India*, 1971; *Religion Series I, Paper* 2 *of* 1972, Delhi, Manager of Publications, 1972.

—Do— — *Census of India*, 1971; *Economic Characteristics of Population Series* 1 *Paper* 3 *of* 1972, Delhi, Manager of Publications, 1972.

—Do— — *Census of India*, 1981 : *Final Population Totals, Series* 1, *Paper* 1 *of* 1982, Delhi, Controller of Publications, 1983.

—Do— — *Census Atlas*, 1971 ; *Census of India, Series* 1 *Pt. IX*, Delhi, Controller of Publications, 1977.

JAISWAL, H. K. — *Demographic Structure of Tribal Society*, Meerut, Meenakshi, 1979.

MISRA, S. D. — *Rivers of India*, New Delhi, National Book Trust, 1970.

MITRA, Asok — *India's Population : Aspects of Quality and Control*, 2 *V*, New Delhi, Abhinav, 1978.

SINGH, R. L. — *India ; A Regional Geography*, Varanasi, National Geographical Society of India, 1971.

SRINIVASAN, K. & OTHERS — *Demographic and Socio-economic Aspects of Child in India*, Bombay, Himalaya, 1979

SRINIVASAN, & MUKERJEE — *Dynamics of Population and Family Welfare*, Bombay, Himalaya, 1981.

2. NATIONAL SYMBOLS

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Our Flag, Rev.* N w Delhi, Publications Division, 1963.

—do— — *Our Nation. Song Rev. Ed.* New Delhi, Publications Division, 1962.

—do— — *Our National Emblem*, New Delhi, Publications Division, 1966.

SEN, PROBODHCHANDRA — *India's National Anthem*, Calcutta, Santiniketan Asramika Sangha, 1949.

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Digitized by Arya Samaj Foundation Chennai and eGangotri

3. GOVERNMENT

Constitution

AGGARWALA, R. N. — *National Movement and Constitutional Development of India, Ed.* 9 ; Delhi, Metropolitan, 1976.

BANERJEE, ANIL CHANDRA — *Constitutional History of India*, 3 *V*, Delhi, Macmillan, 1978.

BASU, DURGA DAS — *Introduction to the Constitution of India, Ed.* 8, New Delhi, Prentice Hall, 1980.

—do— — *Shorter Constitution of India, Ed.* 18, New Delhi, Prentice Hall, 1981.

DIWAN, PARAS — *Indian Constitutional Amendments*, New Delhi, Oxford & IBH, 1980.

INDIA, MINISTRY OF LAW AND JUSTICE — *Constitution of India (as modified up to* 15 *January* 1980).

KASHYAP, SUBHAS C. — *Jawaharlal Nehru and the Constitution*, New Delhi, Metropolitan, 1982.

MANSERGH, NICHOLAS, *ed.* — *Transfer of Power* 1942—47, *V.* 10, London, Her Majesty's Stationery Office, 1981.

MATHUR, SUBHAS, *ed.* — *Our Constitutional Head*, Jodhpur, Latest, 1981.

MEHTA, S. N. — *Indian Constitutional Law*, Kurukshetra, Vishal, 1982.

MISHRA, SHREEGOVIND — *Constitutional Development and National Movement in India* (1919—47), Patna, Janki, 1978.

SHAKDHER, S. L.*ed*, — *Constitution and the Parliament in India*, New Delhi, National, 1976.

VARADACHARI, V. K. — *Governor in the Indian Constitution*, New Delhi, Heritage, 1980.

Legislature

HIDAYATULLAH, M. — *Parliamentary Privileges : The Press and the Judiciary*, Bombay, Asia, 1970.

INDIA, ELECTION COMMISSION — *Report on the General Elections in India*, 1951-52, 1957, 1962, 1967, 1971-72 *and* 1977. Delhi, Manager of Publications.

—Do— — *Manual of Election Law.* Delhi, Manager of Publications, 1977.

INDIA, LOK SABHA SECRETARIAT — *Rules of Procedure and Conduct of Business in Lok Sabha, Ed.* 6, New Delhi, the author, 1977.

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Parliamentary Democracy in Retrospect*, New Delhi, Publications Division, 1973.

JAKHAR, BAL RAM — *People, Parliament, Administration*, New Delhi, Metropolitan, 1982.

JAIN, R. B. — *Indian Parliament : Innovation, Reforms and Development.* Calcutta, Minerva, 1976.

KASHYAP, SUBHASH, C., *ed.* — *Elections and Electoral Reforms in India*, New Delhi, Institute of Constitutional and Parliamentary Studies, 1971.

KAUL, M. N. AND SHAKDHER, S. L. — *Practice and Procedure of Parliament, Ed.* 3, Delhi, Metropolitan, 1979.

KAUSHIK, SUSHEELA — *Electioning in India : Its Social Basis*, Calcutta, K. P. Bagchee, 1982.

MIRCHANDANI, G. C. — *Assembly Elections* 1980 : Ghaziabad, Vikas, 1981.

RAY, K. C. — *Law of Elections in India with Special Reference to Defections.* Calcutta, Eastern Law House, 1969.

SHIV LAL — *Election in India : Lok Sabha since* 1952. New Delhi, Election Archives, 1978.

SINGHVI, L. M., *ed.* — *Parliament and Administration in India*, Delhi, Metropolitan, 1972.

SINGHVI, L. M. — *Parliamentary Committee in India*, New Delhi, Institute of Constitutional and Parliamentary Studies, 1973.

SRIVASTAVA, G. S. — *Law of Indian Elections and Election Petitions, Ed.* 3, Lucknow, Eastern Book, 1969.

Executive

APPLEBY, P. H. — *Public Administration in India : Report of a Survey*, Delhi, Manager of Publications, 1953.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

APPLEBY, P. H. — *Public Administration for a Welfare State*, Bombay, Asia, 1970.

—DO.— — *Re-examination of India's Administrative System With Special Reference to Administration of Government's Industrial and Commercial Enterprises*, Delhi, Manager of Publications, 1956.

ARORA, R. K., *ed.* — *Indian Administrative System*, New Delhi, Associated, 1978.

AWASTHI, A. & ARORA, R. K. — *Bureaucracy and Development: Indian Perspectives*, New Delhi, Associated, 1978.

AWASTHI, D. — *Dawn of Modern Administration*, New Delhi, S. Chand, 1972.

INDIA, UNION PUBLIC SERVICE COMMISSION — *Public Service Commissions in India*, 1926—1976, New Delhi, the author, 1978.

BHAMBHARI, C. P. — *Public Administration in India*, Delhi, Vikas, 1976.

BHARDWAJ, R. K. — *Municipal Administration in India : A Sociological Analysis of Rural and Urban India*, New Delhi, Sterling, 1970.

BHATNAGAR, S. — *Rural Local Government in India*, New Delhi, Light and Life, 1978.

DAYAL, ISHWAR, *etc.* — *District Administration*, Delhi, Macmillan, 1976.

GORWALA, A. D. — *Report on Public Administration*, New Delhi, Planning Commission, 1951.

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION — *Organisation of the Government of India*, *Ed.* 2, Bombay Somaya, 1971.

—DO.— — *New Vistas in Administration*, New Delhi, the author, 1976.

JAGANNADHAM, V. — *Administration and Social Change*, New Delhi, Uppal, 1978.

PRASAD, BISWANATH — *Indian Administrative Service*, New Delhi, S. Chand, 1969.

SAXENA, A. P. — *Training and Development in Government*, Delhi, Indian Institute of Public Administration, 1974.

SHUKLA, J. D. — *Indianisation of All India Services and its Impact on Administration*, 1834—1947, New Delhi, Allied, 1982.

4. DEFENCE

BANERJEE, UTPAL, K. — *Operational Analysis and Indian Defence*, New Delhi, Concept, 1980.

BARANWAL, S. P., *ed.* — *Military Year Book* 1982-83, New Delhi, Guide, 1982.

BHARDWAJ, R. K. — *Indian Police Administration*, New Delhi, National, 1978.

CHATURVEDI, M. S. — *History of Indian Air Force*. New Delhi, Vikas, 1978.

DAS, S. T. — *Studies in Defence Strategy*. New Delhi, Sagar, 1978.

HANDA, ROHIT — *Policy of India's Defence*, New Delhi, Chetna, 1977.

LONGER, V. — *Red Coasts to Olive Green : A History of Indian Army* 1600-1974. Bombay, Allied, 1974.

MAIKAP, S. C. — *Cadet Corps in India : Its Evolution and Impact*, Calcutta, Naya Prokash, 1979.

Nagendra Singh — *Theory of Force and Organisation of Defence in Indian Constitution : a History from Earliest Times to* 1947; Bombay, Asia, 1979.

Pant, G. N. — *Studies in Indian Weapons and Warfare*, New Delhi, Army Educational Stores, 1970.

Praval, K. C. — *India's Paratroopers*, Delhi, Thomson Press, 1974.

5. EDUCATION

AGGARWAL, J. C. — *National Policy on Education*, 1979 : *A Global View*, New Delhi, Arya, 1979.

AGGARWAL, J. C. — *Progress of Education in Free India : Modern Indian Education and its Problems*, New Delhi, Arya, 1977.

ASSOCIATION OF INDIAN UNIVERSITIES — *Universities Handbook—India*, 1981-82, New Delhi, the author, 1982.

BUCH, M. B., *ed.* — *Second Survey of Research in Education*, Baroda, Society for Educational Research and Development, 1979.

DIRECTORATE OF ADULT EDUCATION — *Adult Education Components in the Development Schemes of Government of India : A Compendium*, New Delhi, the author, 1979.

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Digitized by Arya Samaj Foundation Chennai and eGangotri

CHAKRAVARTY, S. R. *Audio Visual Aids in Education*, New Delhi, Sagar, 1977.
HARPER, A. F. *Research on Examinations in India*, New Delhi, NCERT, 1976.
HEREDERO, J. M. *Rural Development and Social Change : An Experiment in Non-formal Education.* Delhi, Manohar, 1977.
INDIA, MINISTRY OF EDUCATION *Education in India : Annual.* Delhi, Manager of Publications.
—do— *Education in the States : Annual*, Delhi, Manager of Publications.
—do— *Education in Universities in India : Annual*, New Delhi, the author.
—do— *Report of the Secondary Education Commission.* Delhi, the author, 1969.
—do— *Report of the University Education Commission*, 2 *V.*, Delhi, Manager of Publications, 1951.
—do— *Report of the Education Commission*, 1964-66 : *Education and National Development*, Delhi, Manager of Publications, 1966.
INSTITUTE OF CONSTITUTIONAL AND PARLIAMENTARY STUDIES *Report of the Committee on Model Act for Universities*, New Delhi, the author, 1964.
JESUDASON, VICTOR *etc., ed.* *Student Unrest : Problems and Perspective.* New Delhi, the author, 1966.
KAUL, J. N. *Non-formal Education for Rural Women*, New Delhi, Allied, 1981.
KOTHARI, D. S. *Higher Education in India :* 1951-71 : *The Decades of Planned Drift.* Simla, Indian Institute of Advanced Study, 1974.
SHUKLA, P. D. *Education, Science and National Development*, Bombay, Asia, 1970.
SRIVASTAVA, A. P. *Towards the New Pattern of Education in India*, New Delhi, Sterling, 1976.
YAQUIV, ANWARUL *Pathology of Higher Education*, Kanpur, Reprint Publishers, 1979.
Constitutional Protection of Minority Educational Institutions in India, New Delhi, Deep & Deep, 1982.

6. CULTURAL ACTIVITIES

AGARWALA, V. S. *Heritage of Indian Art*, New Delhi, Publications Division, 1976.
APPASAMY, JAYA *An Introduction to Modern Indian Sculpture*, New Delhi, Vikas, 1970.
BAHADUR, K. P. *Castes, Tribes and Culture of India, Vol.* VIII, New Delhi, Ess. Ess., 1981.
BANDYOPADHYAYA, S. *Music in India*, Bombay, D. B. Taraporevala, 1970.
BARRETT, KEN & SHARMA, SURESH, *eds.* *The Indian Experience*, Thailand, Media Transasia, 1982.
BHATTACHARYA, VIVEK *The Spirit of Indian Culture : Saints of India*, New Delhi, Metropolitan, 1980.
CHAITANYA, KRISHNA *A Profile of Indian Culture*, New Delhi, Clarion, 1982.
CHATTOPADHYAYA, KAMLA DEVI *Glory of Indian Handicrafts*, New Delhi, Indian Book, 1976.
—do— *India's Craft Tradition*, New Delhi, Pulications Division, 1982.
CHOPRA, P. N., *ed.* *Religions and Communities of India*, New Delhi, Vision, 1982.
GAEKWAD, FATE SINGH RAO *Palaces of India*, London, Collins, 1980.
JAYAKAR, PUPUL *Earthen Drum.* New Delhi, Publications Division., 1982.
KOOMARASWAMY, A. K. *History of Indian and Indonesian Art.* New Delhi, Munshiram Manoharlal, 1972.
DEVA, B. C. *Musical Instruments of India : Their History and Development.* Calcutta, Firma KLM, 1978.
DONGERKERY, K. S. *Jewellery and Personal Adorment in India*, Delhi, Vikas, 1971.
GARGI, BALWANT *Theatre in India.* New York, Theatre Arts Books, 1962.
GHOSH, N. *Fundamentals of Raga and Tala with a New System of Notation.* Bombay, Popular, 1968.
HOLROYDE, PEGGY *Indian Music : A Vast Ocean of Promise.* London, George Alien & Unwin, 1972.
INDIA, MINISTRY OF INFORMATION & BROADCASTING *Indian Handicrafts, Ed.* 2, New Delhi, Publications Division, 1969.
—do— *Aspects of Indian Music*, New Delhi, Publications Division, 1982.

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INDIAN COUNCIL FOR CULTURAL RELATIONS — *Vision of India. Ed.* 2, New Delhi, the author, 1983.

JONEW, W. & WILLARD, N. A. — *Music of India.* Calcutta, Sushil Gupta, 1962.

KRISHNA CHAITANYA — *A History of Indian Painting, Rajasthani Traditions.* New Delhi, Abhinav, 1982.

LOSTY, JEREMIAH, P. — *The Art of the Book in India.* London, British Library Board, 1982.

MUNSHI, K. M. — *Saga of Indian Sculpture.* Bombay, Bharatiya Vidya Bhawan 1957

PINGLE, B. A. — *History of Indian Music.* Calcutta, Sushil Gupta, 1962.

RAGINI DEVI — *Dance Dialects of India.* Delhi, Vikas, 1972.

RADHAKRISHNAN, S. — *Our Heritage.* Delhi, Vision, 1973.

RAGHAVAN, G. N. S. — *Introducing India.* New Delhi, Indian Council for Cultural Relations, 1983.

SALETORE, R. N. — *Encyclopaedia of Indian Culture, V.* 2, New Delhi, Sterling, 1982.

SHARMA, B. N. — *Festivals of India,* New Delhi, Abhinav, 1978.

SIVARAMAMURTI, C. — *Indian Painting.* New Delhi, National Book Trust, 1970.

—do— — *Sources of History Illuminated by Literature.* New Delhi, Kanak, 1979.

—do— — *Some Aspects of Indian Culture,* New Delhi, Publications Division, 1982.

VATSYAYAN, KAPILA — *Classical Indian Dance in Literature and the Arts.* New Delhi, Sangeet Natak Akademi, 1968.

—do— — *Traditions of Indian Folk Dance.* New Delhi, Indian Book, 1976.

WINSTEDT, RICHARD, *ed.* — *Indian Art.* New Delhi, Oxford & IBH, 1969.

7. SCIENTIFIC RESEARCH

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH. — *Science in India. Ed.* 2. New Delhi, the author, 1966.

DAGLI, VADILAL, *ed.* — *Science and Technology in India.* New Delhi, S. Chand, 1981.

GHOSH, S. N. AND CHAUBEY, N. P., *eds.* — *Impact of Science & Technology on Indian Society,* Calcutta, Naya Prokash, 1981.

JAGGI, O. P. — *History of Science and Technology in India,* 5 *V.*, New Delhi, Atma Ram, 1969.

MIRCHANDANI, G. G. — *India's Nuclear Dilemma.* New Delhi, Popular, 1969.

NAYAR, BALDEV RAJ — *India's Quest for Technological Independence. Vol. I. Policy Foundation and Policy Change. Vol.* 2. *The Results of Policy.* New Delhi, Lancers, 1983.

PRESS INSTITUTE OF INDIA — *Science and India's Future.* Delhi, Vikas, 1969.

RAHMAN, A. AND SHARMA, K. D., *eds.* — *Science Policy Studies,* Bombay, Somaiya 1974.

SARABHAI, VIKRAM — *Science Policy and National Development.* Bombay, Orient Longmans, 1974.

SATHIANATHAN, M. A. — *Bio-Gas : Achievements, and Challenges.* New Delhi, Lakshmi, 1976.

8 HEALTH

BANERJEE, D. — *Family Planning in India.* New Delhi, People's Publishing House, 1978.

BOSE, A. — *Social Statistics in India : Health and Education.* New Delhi, 1981.

CHANDRASEKHAR, S. — *Abortion in a Crowded World: The Problem of Abortion and Special Reference to India.* London, George Allen & Unwin, 1974.

INDIA, MINISTRY OF HEALTH AND FAMILY WELFARE — *Family Welfare Programme in India Year book* 1981-82. New Delhi, the author, 1983.

PATHAK, SHANKAR — *Social Welfare, Health and Family Planning in India.* New Delhi, Marwah, 1979

RAO, KAMALA GOPAL — *Studies in Family Planning : India,* Delhi, Abhinav, 1974.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

9. SOCIAL WELFARE

BHATTACHARYA, VIVEK — *Some Aspects of Social Security Measures in India.* Delhi, Metropolitan, 1970.

CHATTERJEE, BISHWA B. — *Impact of Social Legislation on Social Changes.* Calcutta, Minerva Associates, 1971.

CHATURVEDI, T. N., *ed.* — *Administration for the Disabled.* New Delhi, Indian Institute of Public Administration, 1982.

—do— — *Administration for Child Welfare,* New Delhi, Indian Institute of Public Administration, 1979.

CHAUDHARY, PAWAN — *Workers' Welfare and Law.* New Delhi, Metropolitan, 1977.

CHOWDHRY, D. P. — *Child Welfare Development.* Delhi, Atma Ram, 1980.

GANDHI, M. K. — *Social Service, Work and Reform.* 3 *V.* Ahmedabad, Navajivan, 1976.

INDIA, CENTRAL SOCIAL WELFARE BOARD — *Report of the Advisory Committee on after-care Programme,* Delhi, the author, 1955.

—do— — *Report of the Advisory Committee on Social and Moral Hygiene,* New Delhi, the author, 1955.

INDIA, MINISTRY OF EDUCATION AND SOCIAL WELFARE — *Towards Equality : Report of the Committee on the Status of Women in India.* New Delhi, the author, 1974.

INDIA, PLANNING COMMISSION — *Report of the Study Team on Prohibition.* Delhi, Manager of Publications, 1963-64.

INDIA, PLANNING COMMISSION — *Social Legislation : Its Role in Social Welfare.* New Delhi, Publications Division, 1968.

—do— — *Encyclopaedia of Social Work in India.* 3 *V.* New Delhi, Publications Division, 1968.

INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH, C. S. O. — *Social Information of India : Trends and Structure.* Delhi, Hindustan, 1983.

PATHAK, SHANKAR — *Social Welfare, Health and Family Planning in India.* New Delhi, Marwah, 1979.

PRAKASA RAO, V. V. & RAO V. NANDANI — *Marriage, the Family and Women in India.* New Delhi, Heritage, 1982.

RAY, R. N. — *Life Insurance in India : Perspectives in Social Security,* New Delhi, Indian Institute of Public Administration, 1982.

SINGH, YOGENDRA — *Social Stratification and Change in India,* New Delhi, Manohar, 1980.

SRINIVAS, M. N. — *Social Change in Modern India.* New Delhi, Orient Longmans, 1972.

—do— — *India : Social Structure,* Delhi, Hindustan, 1980.

10. MASS COMMUNICATION

ALL INDIA, NEWSPAPER EDITORS' CONFERENCE — *What Ails the Indian Press,* Bombay, Somaiya, 1971.

APTE, MAHADEV. L. — *Mass Culture, Language and Arts in India,* Bombay, Popular, 1978.

CHATTERJEE, R. K. — *Mass Communication. Ed.* New Delhi, National Book Trust, 1978.

CHILDREN'S FILM SOCIETY — *Report of the Study Team on the Working of the Children's Film Society vis-a-vis Future of Children's Film Movement in India,* New Delhi, the author, 1968.

DASGUPTA, CHIDANANDA — *Talking about Films,* New Delhi, Orient Longman, 1981.

DHARAP, B. V. — *Indian Film :* 1977-78. Pune, Motion Picture Enterprises, 1979.

DUA, M. R. — *Themes in Indian Communication.* New Delhi, Metropolitan, 1980.

INDIA, MINISTRY OF EDUCATION AND CULTURE — *Report of National Workshop on Educational Broadcasting under UNESCO's Asian Programme of Educational Innovation for Development* (APEID), New Delhi, the author, 1981.

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Report of the Press Commission.* 3 *Pts.* Delhi, Manager of Publications, 1954.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

INDIA, MINISTRY OF INFORMATION AND BROADCASTING	*Report of the Film Enquiry Committee.* Delhi, Manager of Publications, 1951.
—do—	*Report of the Second Press Commission.* 2 *V.*, New Delhi, Controller of Publications, 1982.
—do—	*Report of the Enquiry Committee on Small Newspapers*, 1965, Delhi Manager of Publications, 1966.
—do—	*Report of the Committee on News Agencies* : *August* 1977. New Delhi, Controller of Publications, 1977.
—do—	*Press in India* 1981 : *Annual Report of the Registrar of Newspapers for India.* 2 *Pts.*, Delhi, Controllar of Publications, 1982.
—do	*Report of the Advisory Committee on the Press Council*, 1968. New Delhi, the author, 1969.
—do—	*Radio and Television : Report of the Committee on Broadcasting and Information Media.*, New Delhi, the author, 1966.
—do—	*Report of the Enquiry Committee on Film Censorship*, New Delhi, the author, 1969.
—do—	*Report of the Evaluation Committee on Plan Publicity by Voluntary Organisations.* New Delhi, the author, 1965.
—do—	*Report of the Mass Communication Study Team* (*Sponsored by the Ford Foundation*), New Delhi, the author, 1963.
—do—	*Report of the Study Team on Five Year Plan Publicity*, New Delhi, the author, 1965.
—do—	*Report of the Fact Finding Committee on Newspaper Economics.* New Delhi, the author, 1975.
—do—	*Report of the Working Group on National Film Policy.* (*K. S. Karanth, Chairman*). New Delhi, the author, 1980.
—do—	*Two Decades of Films Division*, Bombay, Films Division, 1969.
—do—	*National Documentation Centre on Mass Communication : Report of the Committee of Experts.* New Delhi, the author, 1975.
INDIA, MINISTRY OF INFORMATION AND BROADCASTING	*Mass Media in India* 1980-81, New Delhi, Publications Division, 1983.
INDIAN INSTITUTE OF MASS COMMUNICATION	*Rural Development and Communication Policies.* New Delhi, the author, 1980.
—do—	*Communication and the Traditional Media*, New Delhi, Orient Longman, 1981.
INDIAN NEWS AND FEATURE ALLIANCE	*Press and Advertisers Year Book*, 1982, New Delhi, the author, 1982.
KRISHNAMURTHY, N.	*Indian Journalism.* Mysore, Mysore University, 1970.
MACHWE, PRABHAKAR	*Creative Arts and Communication.* New Delhi Communication Publications, 1977.
MANKEKAR, D.R.	*Press under Pressure.* New Delhi, New Book, 1973.
—do—	*Whose Freedom ? Whose Order ?* Delhi, Clarion, 1981.
MASANI, MEHRA	*Broadcasting and the People.* New Delhi, National Book Trust, 1977
MATHUR, J.C.	*New Lamps for Aladdin : Mass Media in Developing Society* Bombay, Orient Longmans, 1965.
MENON, N.	*Communication Revolution*, New, Delhi, National, Book Trust, 1976
NARASIMHAN, V.K.	*Press, the Public and the Administration*, New Delhi, Indian Institute of Public Administration, 1962.
NOORANI, A.G.	*Freedom of the Press in India*, Bombay, Nachiketa Publications, 1971.
OOMMEN. M.A. & JOSEPH, K.V.	*Economics of Film Industry in India*, Gurgaon, Academic Press, 1981.
OPERATION RESEARCH GROUP	*National Readership Survey*, *5V*, Vadodara, the author, 1972.
—do—	*Media Scene in India : Highlights from the National Readership Survey.* Vadodara, the author, 1972.
—do—	*Report of the Readership Survey*, 14*V*, Vadodara, the author, 1973
PRESS INSTITUTE OF INDIA	*Press and the Law*, New Delhi, the author, 1968.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

RANGOONWALLA, FIROZE — *Indian Cinema Past and Present.* New Delhi, Clarion, 1983.

RAMAREDDI, P. — *Cinematograph Code.* 5th *F.D.* Hyderabad, Cinematograph Laws Research Institute, 1983.

RAY, SATYAJIT — *Our Film, Their Films,* Bombay, Orient Longmans, 1976.

RAU, M. CHALAPATHI — *Press in India.* Bombay, Allied, 1968.

SARKAR, CHANCHAL — *Press Councils and their Role.* New Delhi, Press Institute of India, 1965.

—do— — *Challenge and Stagnations : The Indian Mass Media,* Delhi, Vikas, 1969.

SARKAR, KOBITA — *Indian Cinema Today : An Analysis.* New Delhi, Sterling, 1975.

SAHNI, J.N. — *Truth about the Indian Press,* Bombay, Allied, 1974.

SINDHWANI, T.V. — *Newspaper Economics and Management.* New Delhi, Ankur 1979.

VASUDEV, ARUNA — *Liberty and Licence in the Indian Cinema,* New Delhi, Vikas, 1978.

VASUDEV, ARUNA & LENGLET, PHILEPPE *eds.* — *Indian Cinema Super Bazar,* New Delhi, Vikas, 1983.

11. BASIC ECONOMIC DATA

AGARWAL, A.N. — *Indian Economy : Nature, Problems and Progress.* New Delhi, Vikas, 1977.

CHANDHOK, H.L. — *Wholesale Price Statistics : India* 1947-78. 2 V. New Delhi, Economics & Scientific Research Foundation, 1978.

DAGLI, VADILAL, *ed.* — *Infrastrueture for Indian Ecoomy,* Bombay, Vora, 1970.

GADGIL, D.R. — *Planning and Economic Policy in India,* Pune, Gokhale Institute of Politics and Economics, 1972.

GANGULI, B.N. — *Some Aspects of Classical Political Economy in Nineteenth Century Indian Perspective.* Calcutta, Centre for Study in Social Sciences 1979.

GHOSH, A.B. — *Price Trends and Policies in India,* Delhi, Vikas, 1974.

GHOSH, ALAK — *Indian Economy : Its Nature and Problems. Ed.* 22, Calcutta, World Press, 1979.

GHOSH, A.K. — *Prices and Economic Fluctuations in India,* 1861-1947, New Delhi, S. Chand, 1979.

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *One Nation, One Economy.* New Delhi, Publications Division, 1971

INDIA, MINISTRY OF FINANCEE — *Current Economic Situation, A Review,* New Delhi, the author, 1971

—do— — *Economic Survey,* 1982-83. Delhi, the author, 1983.

INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH — *A Survey of Research in Economics, 6V,* Bombay Allied Publishers, 1980.

MATHUR, O.P. — *Public Sector Banks in India's Economy,* New Delhi, Sterling, 1978.

MUKHERJEE, M. — *National Income of India : Trends and Structure.* Calcutta, Statistical Society of India, 1969.

RAO, D.G. — *Fertilizers : The Story of Public Sector in India* New Delhi, Publications, 1983.

RAO V.K.R.V. — *Food Nutrition and Poverty in India,* New Delhi, Vikas, 1982.

SAU, RANJIT — *India's Economic Development : Aspects of Class Relations,* New Delhi, Orient Longmans, 1981.

SINGH, S.K. — *Central Excise Duties and Economic Development in India.* New Delhi, S. Chand, 1977.

TARLOK SINGH — *India's Development Experience,* Delhi, Macmillan, 1974.

12. FINANCE

BHARGAVA, P.K. — *Essays on Indian Public Finances,* Allahabad, Chugh, 1978.

BHATIA, H.L. — *Public Finance, New Delhi,* Vikas, 1980.

BHATNAGAR, SUDHA — *Union-State Financial Relations and Finance Commissions,* Allahabad, Chugh, 1979.

BOMBWALL, RAMAN — *Federal Financial Relations in India,* Meerut, Meenakshi, 1970.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

GHATAK, SUBRATA — *Rural Money Market in India*, Delhi, Macmillan, 1976.

INDIA, CONTROLLER OF INSURANCE — *Indian Insurance Year Book, Annual*, Delhi, Controller of Publications, 1979.

INDIA, MINISTRY OF FINANCE — *Economic Survey : Annual*, New Delhi, the author.

—do— — *Report of the Finance Commissions*, 1952, 1957, 1961, 1965, 1969, 1973, 1977 *and* 1978, Delhi Controller of Publications.

—do— — *External Assistance : Annual*, New Delhi, the author.

—do— — *Report of the Direct Taxes Administration Enquiry Committee*, Delhi, Manager of Publications, 1960.

INSTITUTE OF CONSTITUTIONAL AND PARLIAMENTARY STUDIES — *Federal Financial Relations in India*, New Delhi, the author, 1974.

KHAN, M. Y. — *Indian Financial System : Theory and Practice*. New Delhi, Vikas, 1980.

PANDEY, I. M. — *Financial Management*, New Delhi, Vikas, 1981.

PAREEK, H. S. — *Financing of Small Scale Industries in a Developing Economy*, New Delhi, National, 1978.

PREMCHAND, A. — *Control of Public Expenditure in India. Ed.* 2, Bombay, Allied, 1970.

RESERVE BANK OF INDIA — *Report on Currency and Finance* 1981-82. *Vol. I : Economic Review : Vol. II : Statistical Statements*. Bombay, the autho 1983.

—do— — *History of the Reserve Bank of India*, 1935-1951. Bombay, the author, 1970.

—do— — *Trend and Progress of Banking in India, Annual*, Bombay, the author.

SHAH, MANUBHAI — *New Role of Reserve Bank in India's Economic Development*, Bombay, Vora, 1970.

13. PLANNING

AHMAD, ENAYAT AND SINGH, D. K. — *Regional Planning with Reference to India*. 2 *V*, New Delhi, Oriental, 1980.

BHAGWATI, JAGDISH AND DESAI, PADMA — *Indian Planning for Industrialisation*. London, Oxford University Press, 1970.

CHATTERJI, AMIYA — *Central Financing of State Plans in the Indian Federation*. Calcutta, K.L. Mukhopadhyay, 1971.

DAS, NABAGOPAL — *Indian Economy under Planning*. Calcutta, World Press, 1972.

GADGIL, D. R. — *Planning and Economic Policy in India. Ed.* 5, Pune, Gokhale Institute of Politics and Economics, 1972.

INDIA, MINISTRY OF PLANNING — *National Accounts Statistics, Sources and Methods*, April, 1980.

—do— — *National Accounts Statistics*, 1970-71—1980—81, New Delhi, the author, 1983.

—do— — *Basic Statistics Relating to the Indian Economy* 1950-51; 1980-81, New Delhi, the author.

—do— — *Statistical Abstracts of India*, 1979. New Delhi, the author.

INDIA, PLANNING COMMISSION — *First Five Year Plan*, New Delhi, the author, 1952.

—do— — *Second Five Year Plan*, New Delhi, the author, 1956.

—do— — *Third Five Year Plan*, New Delhi, the author, 1961.

—do— — *Fourth Five Year Plan*, New Delhi, the author, 1970.

—do— — *Fifth Five Year Plan*, 1974-79. New Delhi, the author, 1976.

—do— — *Sixth Five Year Plan*, 1980-85, New Delhi, the author, 1981.

MEHTA, ASOKA — *Economic Planning in India*, New Delhi, Young India Publications, 1970.

MINHAS, B. S. — *Planning and the Poor*. New Delhi, S. Chand, 1974.

BHATTACHARYA, VIVEK — *New Faces of Rural India : March of Twenty-Point Programme*, New Delhi, Metropolitan, 1982.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

14. AGRICULTURE

AGRAWAL, A. N. — *Indian Agriculture : Problem, Progress and Prospects*, New Delhi, Vikas, 1980.

CHOUBEY, B. N. — *Institutional Finance for Agricultural Development*, Pune, Shubhada Saraswat, 1977.

DAKSHINAMURTI, C. *etc.* — *Water Resources of India and their Utilisation in Agriculture*, New Delhi, Water Technology, Centre, IARI 1978.

DASGUPTA, A. K. — *Agricultural and Economic Development in India.* New Delhi, Associated, 1973.

INDIA, MINISTRY OF AGRICULTURE — *Agricultural Wages in India*, 1980-81, New Delhi, the author, 1982.

INDIA, MINISTRY OF AGRICULTURE AND IRRIGATION — *National Commission on Agriculture*, 1976 : *Report*, New Delhi, the author, 1970.

INDIA, MINISTRY OF ENERGY AND IRRIGATION — *Rashtriya Barh Ayog (National Commission of Floods) : Report of 2-V.* New Delhi, the author, 1980.

INDIA, MINISTRY OF FOOD AND AGRICULTURE — *Report of the Grow More Food Enquiry Committee*, New Delhi, the author, 1952.

—do— — *Report of the Foodgrains Enquiry Committee*, New Delhi, the author, 1957.

—do— — *Report of the Foodgrains Policy Committee*, New Delhi, the author, 1966.

INDIA, MINISTRY OF IRRIGATION AND POWER — *Rise in the costs of Irrigation and Multipurpose Projects : Report of the Expert Committee*, New Delhi, the author, 1973.

INDIAN COUNCIL OF AGRICULTURAL RESEARCH — *Agricultural Research in India : Achievements and Outlook*, New Delhi, the author, 1972.

PAL, H. BIS RAM — *Sands Bloom.* New Delhi, Publications Division, 1983.

RAMACHANDRAN, L. — *India's Food Problem : A New Approach*, New Delhi, Allied, 1977.

RANDHAWA, M. S. — *History of Agriculture in India.* New Delhi, ICAR, 1981.

RAO, K. L. — *Irrigation*, New Delhi, Publications Division, 1972.

RAY, A. C. — *Co-operative Farming in India.* Calcutta, P. Ghosh, 1978.

SHAH, C.H., *ed.* — *Agricultural Development of India : Policy and Problems*, New Delhi, Orient Longmans, 1979.

SUBRAMANIAM, C. — *The New Strategy in Indian Agriculture*, New Delhi, Vikas, 1980.

15. RURAL DEVELOPMENT

ARORA, R. C. — *Industry and Rural Development*, New Delhi, S. Chand, 1978.

BHATTACHARYA, S. N. — *Rural Development in India and Other Developing Countries*, New Delhi, Metropolitan, 1983.

ENSMINGER, DOUGRANS — *Rural India in Transition*, New Delhi, All India Panchayat Parishad, 1972.

HARGOPAL, G. — *Administrative Leadership and Rural Development in India.* New Delhi, Light and Life, 1980.

INDIA, MINISTRY OF AGRICULTURE AND IRRIGATION — *Report of the Committee on Panchayati Raj Institutions*, New Delhi, the author, 1978.

INDIA, MINISTRY OF RURAL RECONSTRUCTION — *National Rural Employment Programme : A Guide Line*, New Delhi, the author, 1981.

KHAN, MUMTAZ ALI & NOOR AYESHA — *Status of Rural Women in India*, New Delhi, Uppal, 1982.

MISHRA, R. P. AND SUNDRAM, K. V. — *Multi-level Planning and Integrated Rural Development in India*, New Delhi, Heritage, 1980.

NANAVATI, M. B. AND ANJARIA, J. J. — *Indian Rural Problem.* Bombay, Indian Society of Agricultural Economics, 1975.

PANCHANADIKAR, K. C. AND PANCHANDIKAR, J. — *Rural Modernisation in India : A Study in Developmental Infrastructure*, Bombay, Popular, 1978.

PAUL, CHOWDHRY, D. — *New Partnership in Rural Development*, New Delhi, M. N. Publishers, 1978.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

RAMACHANDRAN, H. *Village Clusters and Rural Development*, New Delhi, Concept, 1980.

RAO, R. V. *Rural Industrialisation in India*, Delhi, Concept, 1978.

SHAH, S. M. *Rural Development : Planning and Reforms*, New Delhi, Abhinav, 1977.

16. CIVIL SUPPLIES AND COOPERATION

DHOLAKIA, N. AND KHURANA, R., *eds.* *Public Distribution System*, New Delhi, Oxford & IBH, 1979.

GOYAL, S. K. *Consumers Cooperative Movement in India*, Meerut, Meenakshi, 1972.

HOUGH, E. M. *Cooperative Movement in India, Ed.* 5. Bombay, Oxford University Press, 1966.

KRISHNASWAMI, O. R. *Fundamentals of Cooperation*, New Delhi, S. Chand, 1978.

MATHUR, B. K. *Cooperation in India : A Critical Analysis of the Cooperative Movement in India's Planned Economy*, Agra, Sahitya Bhavan, 1971.

RAO, L. R. *Rural Cooperatives in India*, Delhi, S. Chand, 1974.

RESERVE BANK OF INDIA *Review of the Cooperative Movement in India*, 1966-68, Bombay, the author, 1970.

—do— *Statistical Statements Relating to Cooperative Movement in India, Annual*, Bombay, the author.

17. ENERGY

CHAUDHURI, M. R. *Power Resources in India*, New Delhi, Oxford & IBH, 1970.

DASGUPTA, B. *Oil Industry in India : Some Economic Aspects.* London, Frank Cass, 1971.

INDIA, MINISTRY OF ENERGY *Report of the Fuel Policy Committee*, Delhi, Manager of Publication, 1975.

INDIA, MINISTRY OF INFORMATION AND BROADCASTING 25-*years of CWPC* 1945-1970, New Delhi, DAVP, 1970.

—do— *India : Irrigation and Power Project Problems : Five Year Plans.* New Delhi, Publications Division, 1970.

INDIA, MINISTRY OF IRRIGATION AND POWER *Public Electricity Supply : All India Statistical Summary, Annual*, New Delhi, the author.

INDIA, MINISTRY OF PETROLEUM AND CHEMICALS *Indian Petroleum and Chemicals Statistics : Annual*, New Delhi, the author.

INDIA, PLANNING COMMISSION *Report of the Working Group on Energy Policy*, New Delhi, the author, 1979.

KUMARAMANGALAM, S. MOHAN *Coal Industry in India : Nationalisation and Task Ahead*, New Delhi, Oxford, 1973.

MEHTA, BALRAJ *India and the World Oil Crisis*, New Delhi, Sterling, 1974.

MIRCHANDANI, G. G. & NAMBOODIRI, P. K. S. *Nuclear India: A Technical Assessment*, New Delhi, Vision, 1981.

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH *Demand of Energy in India*, New Delhi, the author, 1966.

RANGAPPA, K. S., *ed.* *Irrigation and Power in the Three Plans*, New Delhi, Publications Division, 1968.

SMIL, VACLAR & KNOWLAND, W.E., *ed.* *Energy in the Developing World : The Real Energy Crisis*, Oxford, Oxford University Press, 1980.

TYNER, WALLACE, E. *Energy Resources and Economic Development in India* : Bombay, Allied, 1978.

VENKATARAMAN, K. *Power Development in India : Financial Aspect*, New Delhi, Wiley Eastern, 1972.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

18. INDUSTRY

AGGARWALA, DHARAM VIRA — *Industrial Relations and Collective Bargaining*, New Delhi, Deep & Deep, 1982.

BHARATI, R. K. — *Industrial Estates in Developing Economics*, New Delhi, National, 1978.

BUREAU OF PUBLIC ENTERPRISES — *Guidelines for Material Management in Public Enterprises*, Delhi, Controller of Publications, 1979.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL REASERCH — *Wealth of India : A Dictionary of Indian Raw Materials and Industrial Products*. New Delhi, the author, 1948-73.

GADGIL, D.R. — *Industrial Evolution of India in Recent Times* 1860-1939 *Ed.* Bombay, Oxford University Press, 1971.

GUPTA, N.S. AND AMARJIT SINGH — *Industrial Economy of India*, New Delhi, Light and Life, 1978.

INDIA, MINISTRY OF INDUSTRIAL DEVELOPMENT — *Report of the Industrial Licensing Policy Enquiry Committee*. Delhi, Manager of Publications, 1969.

INTERNAL TRADE AND COMPANY AFFAIRS — *Small Scale Industries*, New Delhi, Development Commissioner, Small Scale Industries, 1971.

—do— — *Report of the Committee on Distribution of Income and Levels of Living*, Delhi, Manager of Publications, 1964.

—do— — *Report of the Monopolies Enquiry Commission*, Delhi, Manager of Publications, 1965.

INDIA, PLANNING COMMISSION — *Programmes of Industrial Development*. 1951-56, 1956-61 *and* 1961-66, Delhi, Manager of Publications.

KAUSHAL, O. P. — *Management Organisation and Control in Public Enterprises*. Bombay, Allied, 1970.

KHERA, S. S. — *Management and Control in Public Enterprises*, *Ed.* 2, Bombay, Asia, 1972.

KOTHARI — *Kothari's Economic and Industrial Guide of India*, 1982-83, Madras, Kothari, 1982.

KUST, M. J. — *Foreign Enterprises in India*. Bombay, Oxford University Press, 1969.

MATHUR, M. M. — *Vanaspati Industry in India*. New Delhi, Concept, 1981.

PANDEY, P. S. — *Impact of Industrialisation on the Rural Community*, Delhi, Research Publications, 1978.

RAMANAND RAM, V. V., *ed.* — *Working of the Public Sector*. Bombay, Allied, 1970.

RAO, C. R. ANANDA — *Public Enterprises and Parliamentary Committees in India*, Allahabad, Chugh, 1982.

RESERVE BANK OF INDIA — *Foreign Collaboration in Indian Industries : Second Survey Report*, 1974. Bombay, the author, 1974.

SINGHVI, R. L. — *Role of Industrial Estates in a Developing Economy*, Bombay, Multi-tech., 1979.

TUNGAR, W. N. — *Bureaucracy in Indian Industry*, Pune, Continental Prakashan, 1980.

VEPA, RAM K. — *Small Industry : Challenges of the Eighties*, Delhi, Vikas, 1981.

19. COMMERCE

AGGARWAL, C. T. — *Export Methods and Service in India*, *Ed.* 2, Chandausi, India Export Institute, 1972.

BANERJEE, BROJENDRA NATH — *India's Aid to its Neighbouring Countries*, New Delhi, Select Books, 1982.

BHARDWAJ, R. — *Structural Basis of India's Foreign Trade*, Bombay, Allied, 1970.

DAGLI, VADILAL — *Commerce Year Book*, Bombay, Commerce.

DAGLI, VADILAL, *ed.* — *India's Foreign Trade*. Bombay, Vora, 1973.

DAR, USHA & DAR, PRATAP, *eds.* — *Investment Opportunities in ASEAN Countries*, New Delhi, Sterling, 1979.

DAS, K. K. — *Foreign Trade and Foreign Exchange*. Calcutta, Progressive 1970.

DIRECTOR GENERAL OF FOREIGN TRADE — *Handbook of Foreign Collaboration*. Delhi, Controller of Publications, 1980.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

INDIA, MINISTRY OF COMMERCE — *Report of the Study Team on Import and Export Trade Control Organisation*, 2*V*, New Delhi, the author, 1966.

—do— — *Import Trade Control Policy, Annual* 2 *V.* New Delhi, the author.

INDIAN INSTITUTE OF FOREIGN TRADE — *Trading with the World* : *Country Profiles.* New Delhi, the author, 1972.

RAO, CHATRATH, P. — *Export Marketing in India*, Ahmedabad, Balgovind, 1970.

VENKATASUBBIAH, M. — *Enterprise and Economic Change* : 50 *Years of FICCI.* New Delhi, Vikas, 1977.

WINTER, L. G. AND MEHTA, S. S. — *Export Marketing Operations.* New Delhi, Indian Institute of Foreign Trade, 1970.

20. TRANSPORT

ACHARYA, RAM — *Civil Aviation and Tourism Administration in India*, New Delhi, National, 1978.

AMBA PRASAD — *Indian Railways* : *A Study in Public Utility Administration.* Bombay, Asia, 1980.

BHATNAGAR, K. P. — *Transport in Modern India. Ed.* 8, Kanpur, Kishore, 1970.

INDIA, MINISTRY OF RAILWAYS — *Indian Railways*: *Year Book, Annual*, New Delhi, the author.

INDIAN RAILWAYS — *Indian Railways Silver Jubilee Number* 1956-1981. New Delhi, the author, 1981.

INDIA, MINISTRY OF TRANSPORT AND COMMUNICATIONS — *Report of Intermediate Ports Development Committee.* New Delhi, the author, 1967.

INDIA, PLANNING COMMISSION — *Committee on Transport Policy and Coordination* : *Final Report*, New Delhi, the author, 1966

—do— — *Transport Requirements in Relation to Five Year Plans* : *Indian Experience*, 1951-52 *to* 1960-61. New Delhi, the author.

MOOKERJI, R. K. — *Indian Shippings* : *History of the Seaborne Trade and Maritime Activities of the Indians from the Earliest Times. Ed.* 2, New Delhi, Orient Longmans, 1957.

PAVASKAR, M. G. — *Transport.* Bombay, Popular, 1978.

RAM, M. S. — *Shipping.* Bombay, Asia, 1971.

RAO, M. A. — *Indian Railways*, New Delhi, NBT, 1975.

SAHNI, J. N. — *Indian Railways* : *One Hundred Years.* 1853—1953, New Delhi, Ministry of Railways, 1953.

SRIDHARAN, K. — *Maritime History of India.* New Delhi, Publications Division, 1965.

TRIVEDI, H. M. — *Indian Shipping in Perspective.* New Delhi, Vikas, 1980.

21. COMMUNICATIONS

CHATTERJI, USHA etc. — *Stamps and History of the Republic of India.* Paris, Olivier Perrin, 1975.

CLARKE, GEOFFREY — *Post Office in India and its Story.* London, Lane, 1921.

SRIDHARANI, KRISHANLAL — *Story of Indian Telegraphs* : *A Century of Progress.* New Delhi, Posts and Telegraphs Department, 1953.

SONDHI, KRISHAN — *Problems of Communication in Developing Countries*, New Delhi, Vision Books, 1980.

22. LABOUR

BHIR, B. S. *ed.* — *Dimensions of Industrial Relations in India.* Bombay, United Asia, 1970.

DAS, NABAGOPAL — *Unemployment and Employment Planning*, Calcutta, Orient Longmans, 1972.

DHYANI, S. N. — *International Labour Organisation and India in Pursuit of Social Justice.* New Delhi, National, 1977.

FONSECA, A. J. — *Wage Determination and Organised Labour in India.* Bombay, Oxford, 1970.

CC-0. In Public Domain. Gurukul Kangri Collection, Haridwar

Digitized by Arya Samaj Foundation Chennai and eGangotri

GIRI, V. V. *Labour Problem in Indian Industry.* Bombay, Asia, 1965.

INDIA, LABOUR BUREAU *Indian Labour Statistics : Annual.* Simla, the author.

—do— *Indian Labour Year Book : Annual* Delhi, Controller of Publications.

INDIA, MINISTRY OF LABOUR *Report of the National Commission on Labour,* Delhi, Manager of Publications, 1969.

INDIA, MINISTRY OF LABOUR AND REHABILITATION *Report of the Joint Workshop on Employment Generation,* New Delhi, the author, 1973.

INDIA, NATIONAL SAMPLE SURVEY ORGANISATION *Time Disposition and Wage Rate of Economically Weaker Sections of the Rural Population of India, 3 V,* the author, 1976-77.

INDIA, PLANNING COMMISSION *Report of the Committee of Experts on Unemployment Estimates.* New Delhi, 1970.

INDIAN LAW INSTITUTE *Labour Law and Labour Relations.* Bombay, N. M. Tripathi, 1968.

KAMBLE, N. D. *Bonded Labour in India.* New Delhi, Uppal, 1982.

KARNIK, V. B. *Indian Labour : Problems and Prospects.* Calcutta, Minerva Associates, 1974.

—do— *Indian Trade Unions : A Survey.* Bombay, Popular, 1978.

INDIA, LABOUR BUREAU *Report on Child Labour in Indian Industries,* Simla, the author, 1981.

MARLA, SARMA *Bonded Labour in India.* New Delhi, Biblia Impex, 1981.

SANJIVAYYA, D. *Labour Problems and Industrial Development in India.* New Delhi, Oxford & IBH, 1970.

SUBRAMANIAN, K. N. *Wages in India.* New Delhi, Tata McGraw-Hill, 1977.

VAID, K. N. *Labour Welfare in India.* New Delhi, Shri Ram Centre for Industrial Relations, 1970.

23. HOUSING

DESHPANDE, R. A. *Cheap and Healthy Homes for the Middle Classes of India. Ed.* 7, Pune, United Book Corporation, 1969.

INDIA, MINISTRY OF WORKS, HOUSING AND SUPPLY *Building Materials and Housing in India : A Review,* New Delhi, the author, 1957.

—do— *Report on Residential Buildings : Committee on Plan Projects.* New Delhi, the author, 1961.

INDIA, MINISTRY OF WORKS, HOUSING AND SUPPLY *Report of the Working Group on Housing and Urban Development in the Third Five Year Plan.* New Delhi, the author, 1960.

—do— *Problems of Housing in India.* New Delhi, the author, 1967.

—do— *Report of the Working Group on Housing Cooperation.* New Delhi, the author, 1964.

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION *Problems of Urban Housing : Report of a Seminar Organised by the Indian Institute of Public Administration,* Bombay, Popular, 1960.

INDIAN STATISTICAL INSTITUTE *Tables with Notes on Housing Conditions : Eighteenth Round, Feb.* 1963—*January* 1964. Delhi, Manager of Publications, 1970.

JAGMOHAN *Rebuilding Shahjahanabad : The Walled City of Delhi,* Delhi, Vikas, 1975.

MATHUR, OM *Housing : Standards, Costs, Designs.* New Delhi, the author, 1970.

NATIONAL BUILDING ORGANISATION *Benefits of Subsidised Housing to Industrial Workers.* Delhi, Controller of Publications, 1972.

—do— *Handbook of Rural Housing and Village Planning.* Delhi, Manager of Publications, 1968.

—do— *Selected Papers from Training Course on Sociological and Economic Aspects of Housing.* Delhi, Manager of Publications, 1972.

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH *Tax Incidence on Housing.* New Delhi, the author, 1963.

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Digitized by Arya Samaj Foundation Chennai and eGangotri

RAO, B. BHASKARA — *Housing and Habitat in Developing Countries*, New Delhi, Newman, 1979.

SINHA, BAKSHI DAYANATH — *Housing Growth in India.* New Delhi, Arnold-Heineman, 1976.

YADAV, C. S. — *Land Use in Big Cities : A Study of Delhi.* Delhi, Inter-India, 1979.

24. JUSTICE AND THE LAW

BAKHSHISH SINGH — *Supreme Court of India as an Instrument of Social Justice.* New Delhi, Sterling, 1976.

BHATIA, H. S., *ed.* — *Origin and Development of Legal and Political System in India,* 2 *V.* New Delhi, Deep & Deep, 1976.

CHATURVEDI, R. G. — *Judiciary under Constitution.* Allahabad, Law Book, 1972.

DHAVAN, RAJEEV — *Supreme Court of India : A Socio-legal Critique of its Juris-techniques.* Bombay, N. M. Tripathi, 1977.

GLEDHILL, A. — *Republic of India : The Development of its Laws and Constitution, Ed.* 2. Bombay, N.M. Tripathi, 1971.

HIDAYATULLAH, M. — *Judicial Methods.* Delhi, National, 1970.

IYER, V. R. KRISHNA — *Law versus Justice, Problems and Solutions.* New Delhi, Deep & Deep, 1981.

—do— — *Law, Justice and the Disabled.* New Delhi, Deep & Deep, 1982.

JHA, CHAKRADHAR — *Judicial Review of Legislative Acts.* Bombay, N. M. Tripathi, 1974.

KAGZI, M. C. J. — *Indian Administrative Law.* Ahmedabad, Chandrakant Vora, 1982.

MITTAL, J. K. — *Introduction to Indian Legal History.* Allahabad, Allahabad Law Agency, 1970.

SETALVAD, M.C. — *Common Law in India. Ed.* 2. Bombay, N. M. Tripathi, 1970.

25. SPORTS AND GAMES

DHARAM RAJA, M. K. — *India in World Sports*, New Delhi, Publications Division, 1982.

SANYAL, S. — *Asian Games : A Statistical Digest* 1951-1978, New Delhi, Vikas, 1983.

DEMELLOW, MELVILLE — *Story of the Olympics*, New Delhi, National Book Trust, 1972.

26. INDIA AND THE WORLD

MINISTRY OF EXTERNAL AFFAIRS — *Documents of the Gatherings of Non-aligned countries* 1961-1979, New Delhi, the author, 1981.

VOHRA, DEWAN C. — *Economic relevance of Non-alignment*, New Delhi, ABC, 1983.

APPADORAI, A. — *Domestic roots of India's foreign policy*, Delhi, Oxford, 1981.

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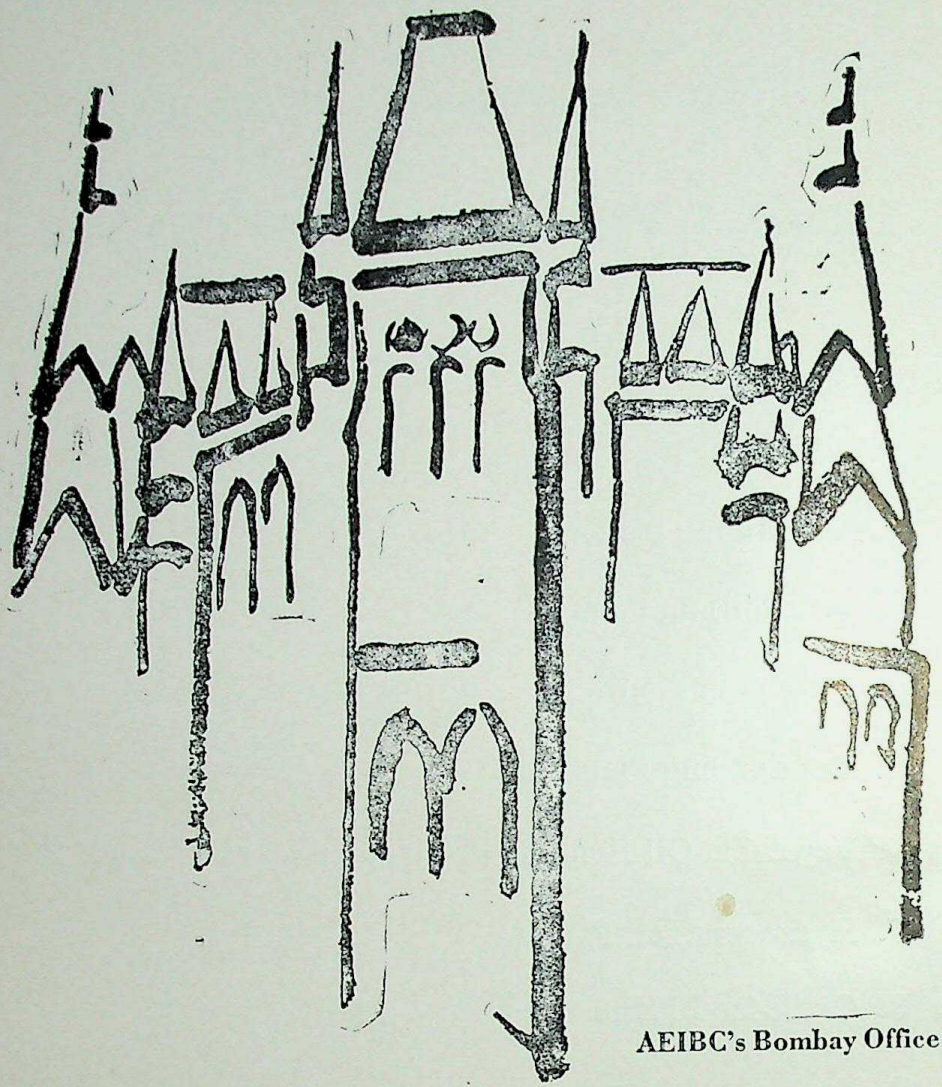
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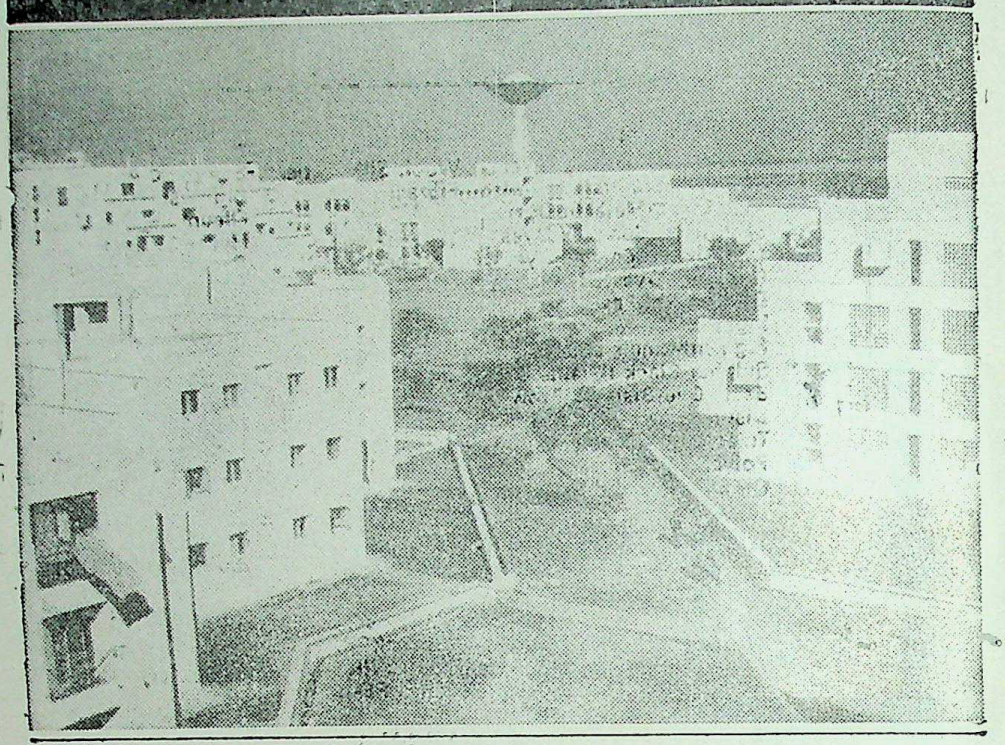
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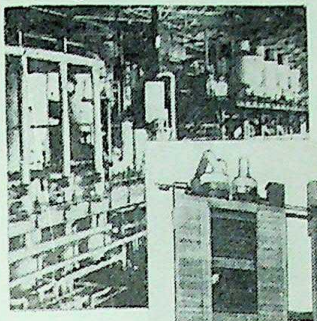
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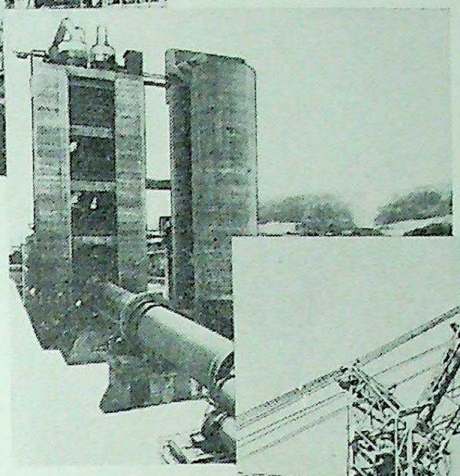
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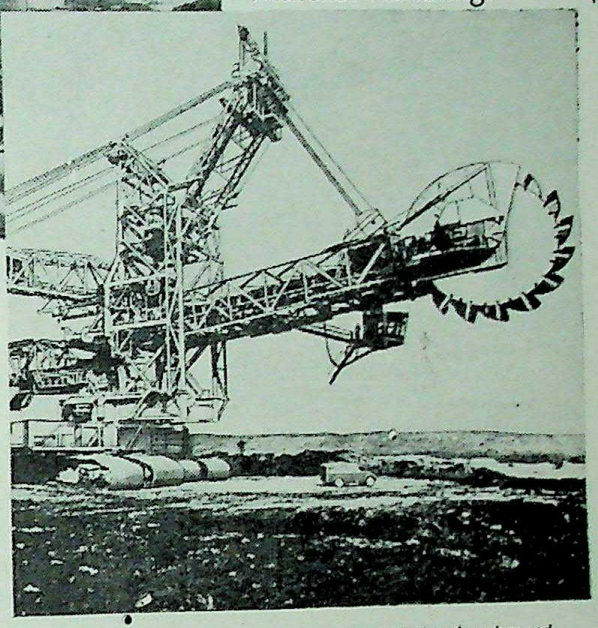
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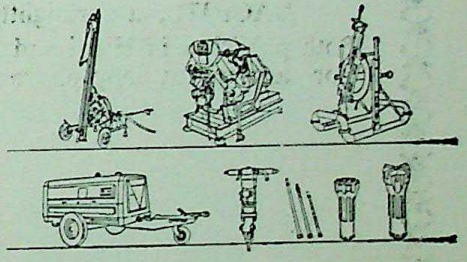
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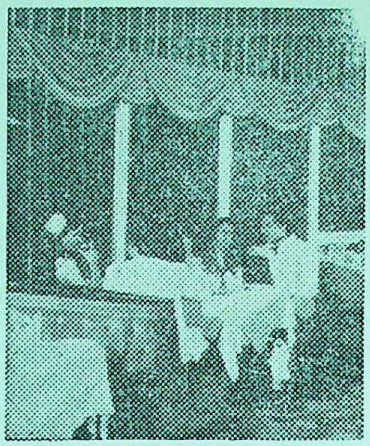
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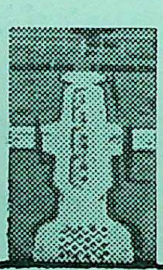
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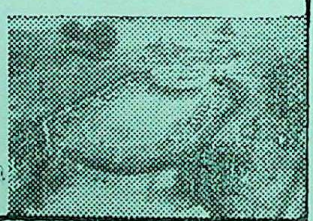
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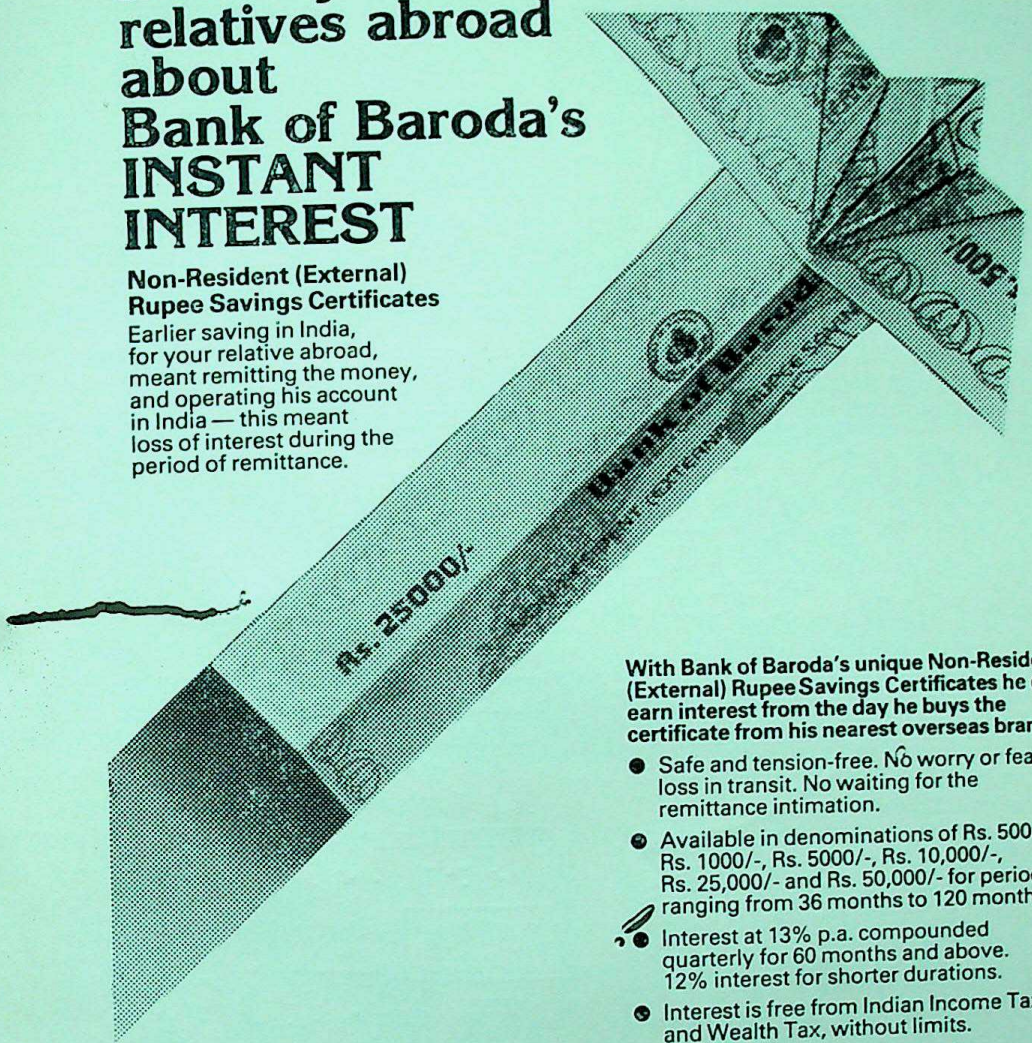
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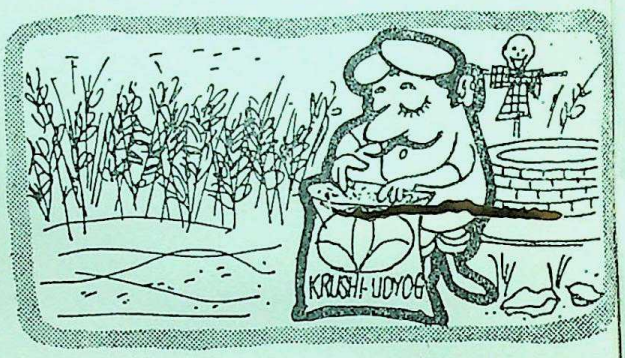
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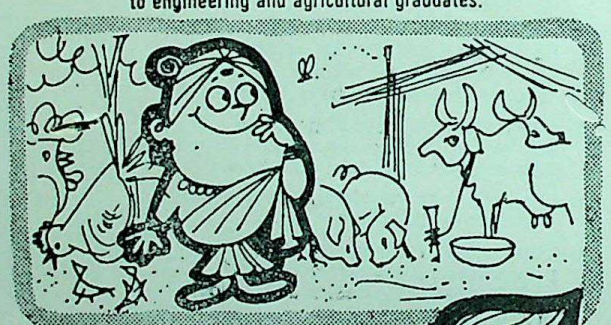
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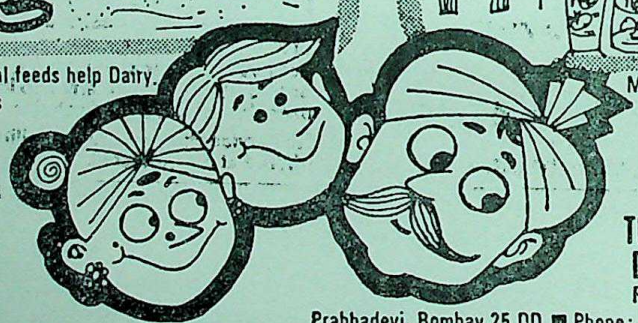
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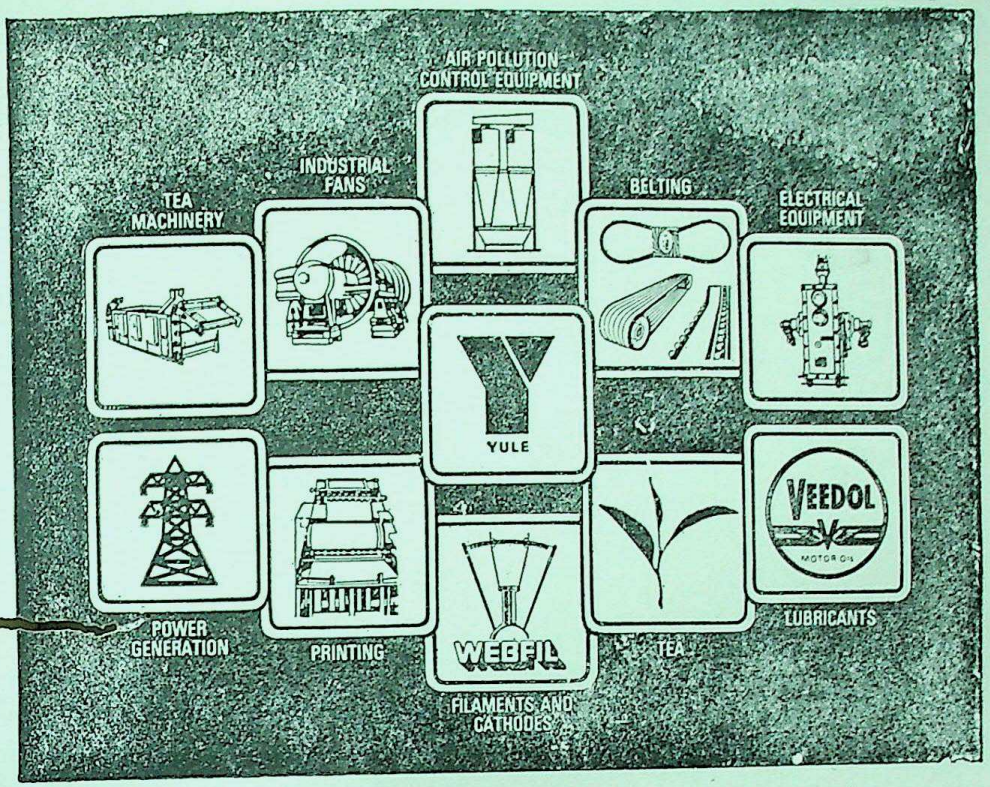
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ANDREW YULE & CO. LTD.
(A Govt. of India Enterprise)
Yule House
8, Clive Row, Calcutta-700 001
Regional Offices : Bombay, Delhi, Madras

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If you have a project in mind...

CALL SICOM

You have this idea. The more you think of it, the more you like it. But as things become clearer, doubts begin to set in. Fear of the systems. Confusion. The need, for someone who knows.

SICOM does more than just understand. 2,743 SICOM assisted industrial units, in production or under construction as on January 1, 1983, bear proud testimony to this fact. Units that reflect a total catalysed investment of Rs.1,373 crores. And mean employment to 1.64 lakh people, in units under production alone.

An impressive performance. Add to that, figures like Rs.247 crores in Term Loan sanctions, and Rs.198 crores in disbursements, and you have a proposition that you just can't resist.

Both in the medium, and large scale sectors, SICOM offers you everything from Plant Location Service to Technical Guidance, from Seed Capital to Term Loans. From Equity Participation and Underwriting Support, to Special Incentives for Pioneer Units. And for those who need assistance in securing land, water, power and other infrastructural facilities, an Industrial Escort Service.

Also available to you, through SICOM, are the incentives under State Government's Package Scheme offered to projects in developing areas, and Central Subsidy too, in notified areas.

This then, is the SICOM invitation. **Call SICOM.** Your future may depend on it.

THE STATE INDUSTRIAL AND INVESTMENT CORPORATION OF MAHARASHTRA LIMITED
Nirmal, Nariman Point, Bombay 400 021.
Phone: 233018 Telex: 011-3066.
Maharashtra's Industrial Catalyst



CASSIC 203-25A

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BRP

Bongaigaon Refinery and petrochemicals Limited, after successfully commissioning the Refinery project, has now embarked on the more challenging task of completion of the petrochemicals Complex including Polyester Staple Fibre unit.

The Staple Fibre produced would be suitable for blending with Cotton, silk, wool and with other manmade fibres.

BONGAIGAON REFINERY AND PETROCHEMICALS LIMITED

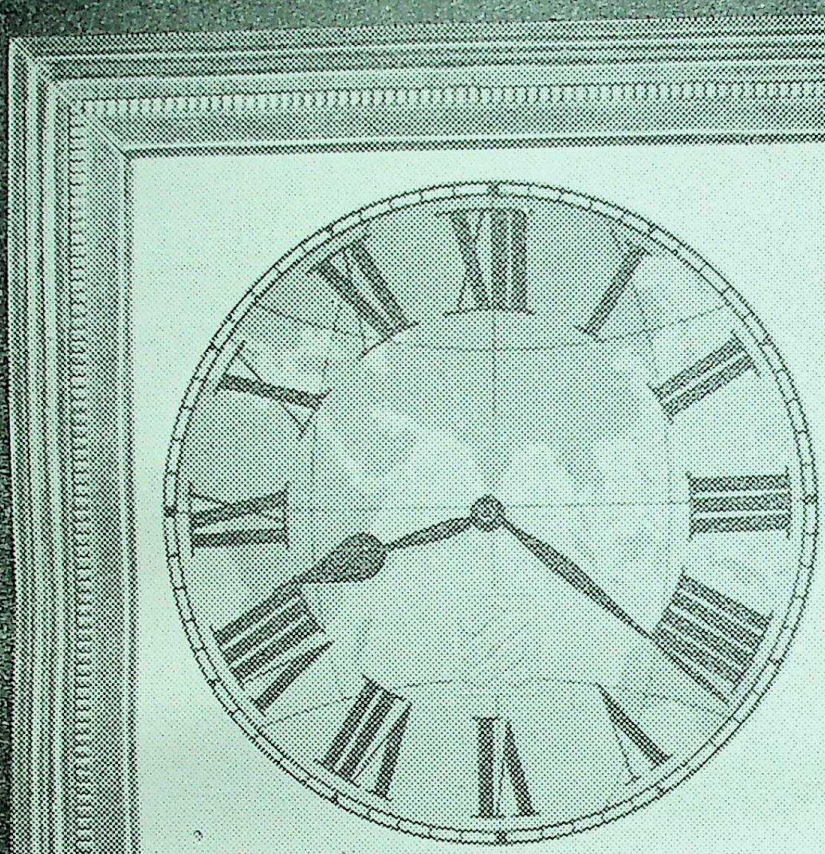
P.O. DHALIGAON, DIST : KOKRAJHAR

ASSAM - 783 385.

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Chartered, a member of Standard Chartered Bank Group with over 1,900 offices worldwide.



Representing your interest in India and abroad.

Because time means money.

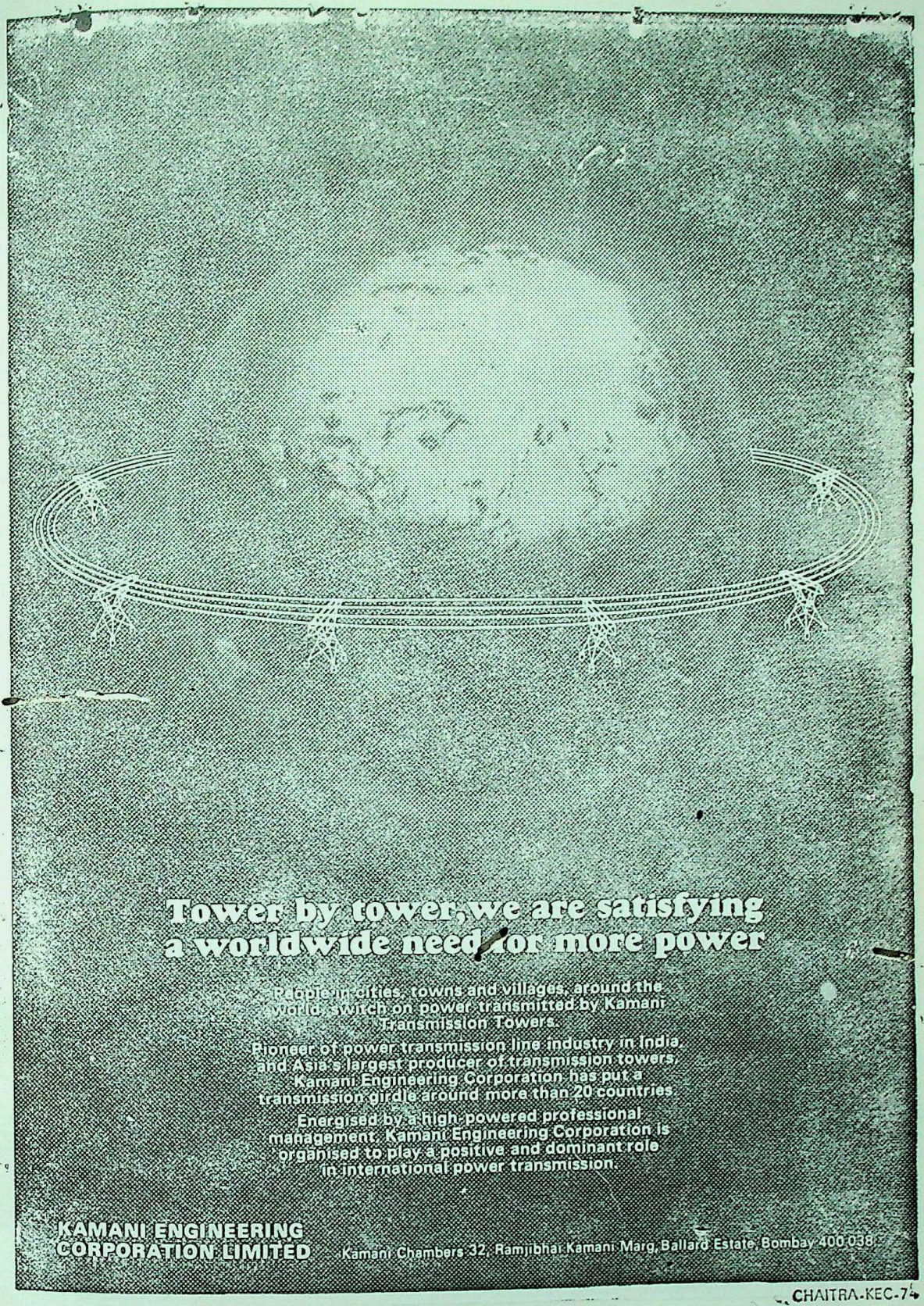
The Chartered Bank

A member of Standard Chartered Bank Group

Office of The Chief Manager, India, 4th Floor, New Excelsior Building, A.K. Naik Marg, Bombay 400 001.
Branches at: Amritsar, Bombay, Calcutta, Cochin, Calicut, Vasco da Gama, Kanpur, Madras, New Delhi.

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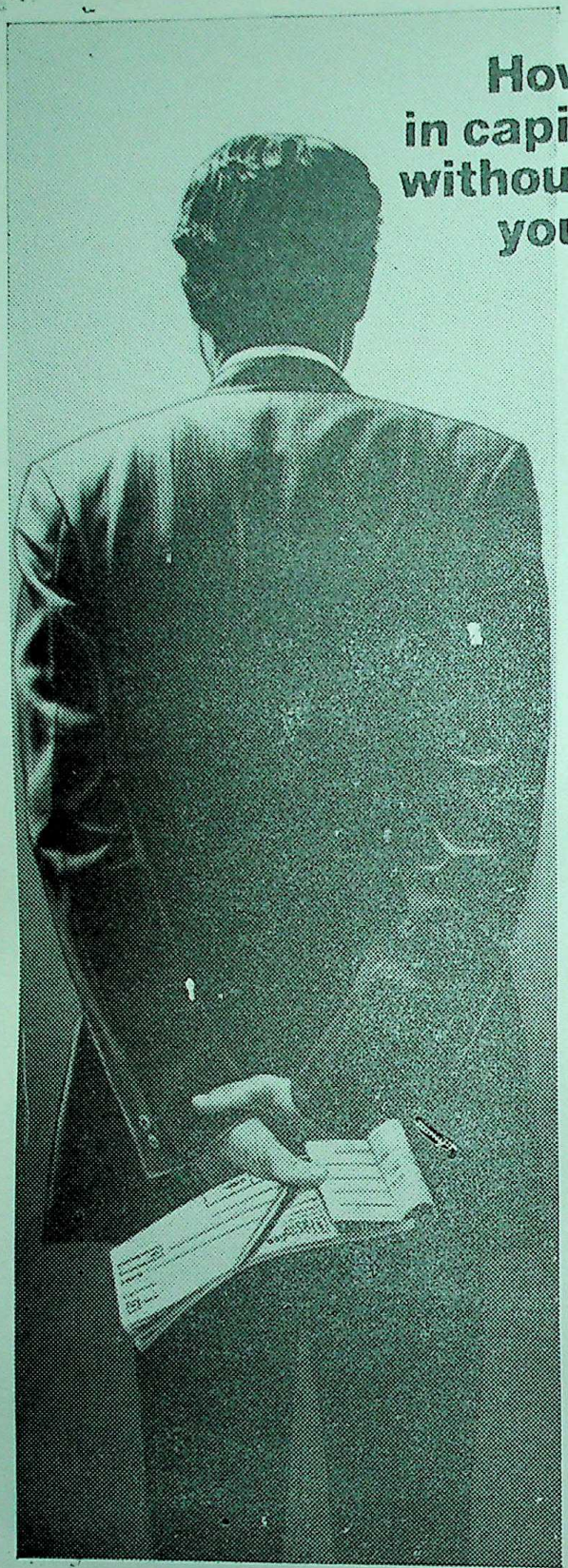
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How to invest in capital equipment without parting with your capital.

Grindlays shows you how.

Without dipping into your own funds, you can now have the use of any type of capital equipment you may require.. from computers to lathes.

Leasing, a blessing

When you need 100% financing and you need it fast, Grindlays can assist you with leasing, a relatively new financing method in India, which is not as expensive as some people think. Leasing leaves your own resources free for working capital needs. Through leasing, you can have the capital equipment you need, with the assurance that the lease rental is fixed for the tenure of the lease, and that it is tailor-made to your specific requirements.

Experience counts

As a leading merchant bank – India's first since 1969 – Grindlays has the expertise and the experience to arrange leasing transactions to meet your cash flow and tax planning requirements. What's more, we do it in a fraction of the time that less experienced new entrants in the field would take to do the same job.

The makings of success

Indeed, Grindlays with its four full-fledged and independent merchant banking offices (Bombay, Delhi, Calcutta, Madras) has what it takes to succeed in a range of corporate financial services.

These include project finance, advice on mergers and acquisitions, project feasibility appraisals, Eurocurrency finance as well as leasing negotiations.

So, now you know where to go when you need top-flight merchant banking services.

Pioneers in merchant banking

Grindlays Bank p.l.c.

Incorporated in the United Kingdom
The liability of members is limited.

Addresses of our Merchant Banking Division

Bombay: 270 Dr. D.N. Road, P.O. Box 1330, Bombay 400 001. Tel: 265681

Calcutta: 19 Netaji Subhas Road, P.O. Box 218, Calcutta 700 001. Tel: 228346

New Delhi: H Block, Connaught Circus, P.O. Box 317, New Delhi 110 001. Tel. 320421

Madras: 19 Rajaji Salai, P.O. Box 297, Madras 600 001 Tel: 20036

GSP/MBD/883/155

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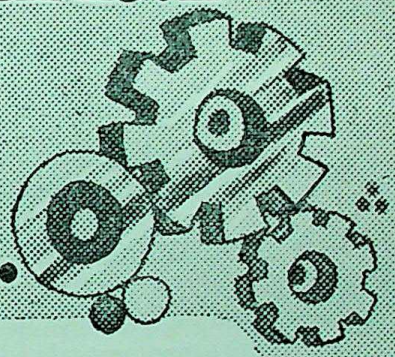
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Sugar and sweets are a part of Ravalgaon



The other equally significant part is our Industrial Machinery Division.



With the Compliments of:
The Ravalgaon Sugar Farm Ltd.
A Walchand Group Company
Factory: P.O. Ravalgaon 423 108,
Dist. Nasik, Maharashtra. Rly Station: Manmad.

Creative Unit-5330

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A NEW CHAPTER OF SOCIAL JUSTICE AND ECONOMIC DEVELOPMENT IS NOW BEING WRITTEN IN ANDHRA PRADESH UNDER THE DYNAMIC LEADERSHIP OF SHRI N. T. RAMA RAO

On taking over the reins of administration, Andhra Pradesh Govt. headed by Shri N. T. Rama Rao addressed itself to the re-assessment of plan priorities. The accent is now on welfare programmes for weaker sections. Bold and imaginative measures are being taken up for ushering in a new era of prosperity. Here are a few achievements of the new Government.

* RICE AT RS. 2/- PER KILO

Rice, the staple food of the people, is being supplied at Rs. 2/- per kilo to all those with an annual income of below Rs. 6000/-.

* HOUSING FOR THE WEAKER SECTIONS

10,000 permanent houses in each district and distribution of house sites for 2 lakh families have been programmed for the current year. Till now construction aid was given to 26,192 families and house sites were distributed to 1.39 lakh families belonging to weaker sections.

* ECONOMIC ASSISTANCE PROGRAMMES

Under these programmes for the weaker sections, margin money was distributed to 1.17 lakh scheduled caste families and 0.19 scheduled tribe families.

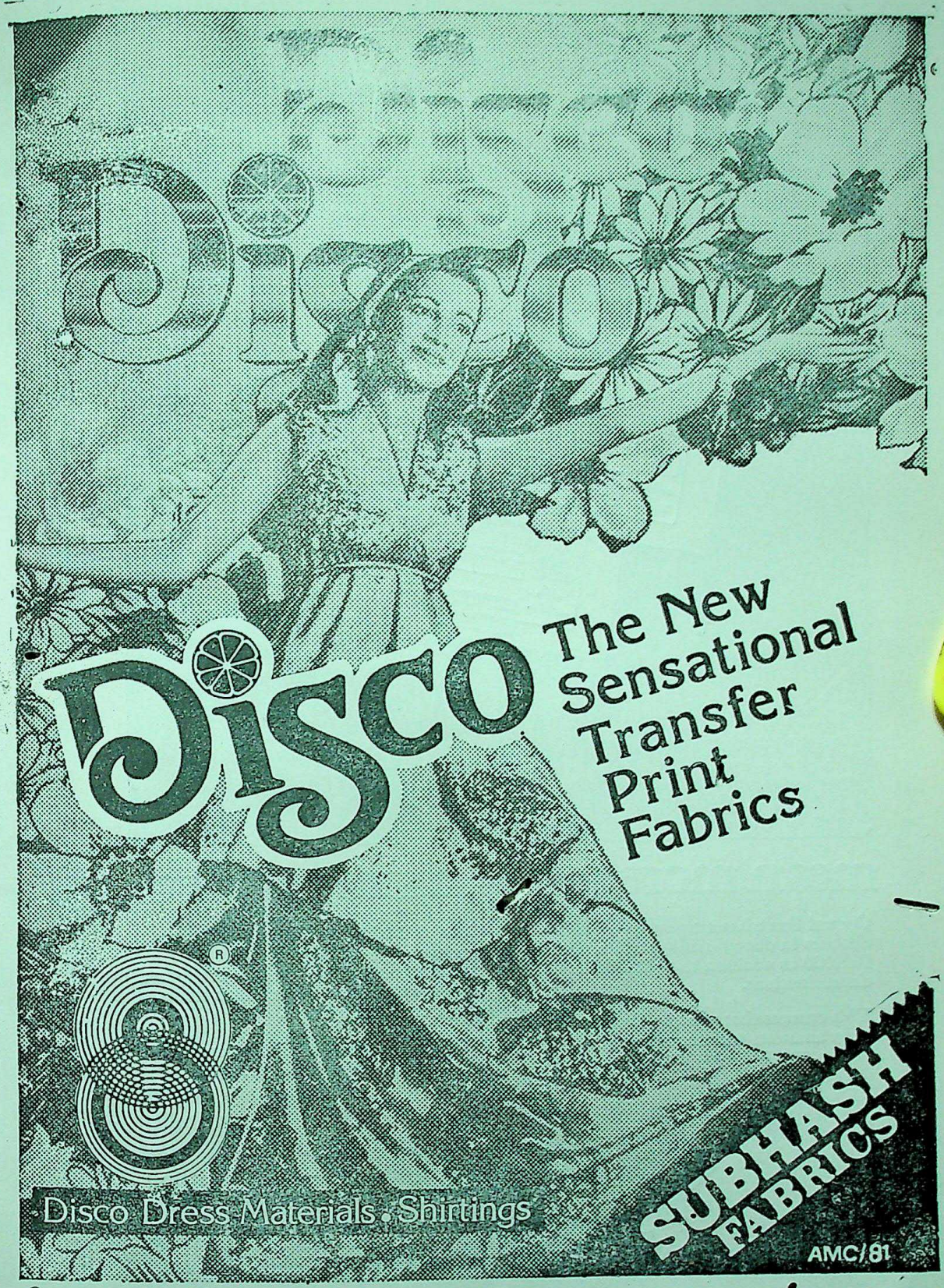
* CHANGING THE RURAL SCENE

Supply of milch cattle, buffaloes, sheep and pumpsets etc. are some of the measures taken for ushering in an era of prosperity in villages. The beneficiaries total 1.43 lakh families, out of which 1.24 lakh families belong to scheduled castes and 0.14 lakh families to scheduled tribes.

"A" Issue by the D.I.P.R., A. P.

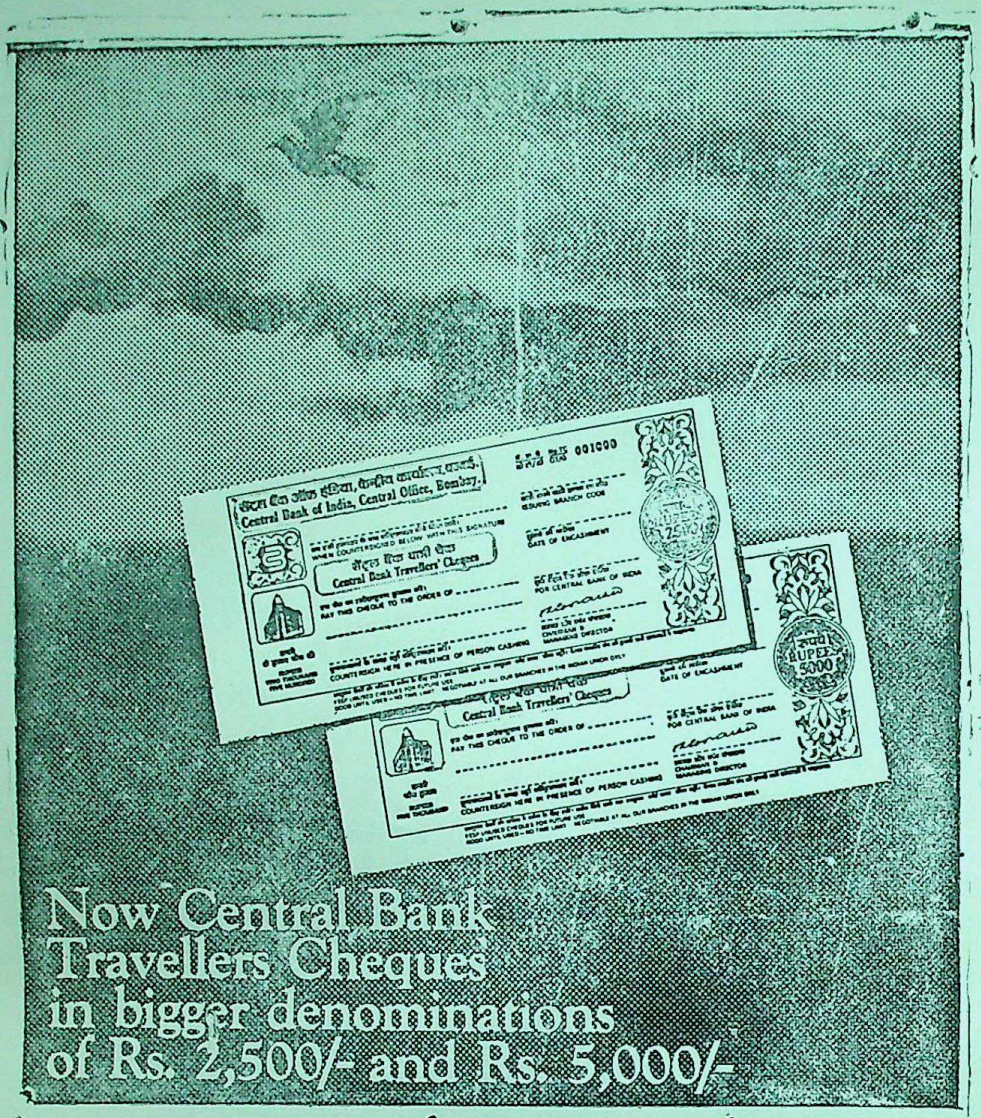
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Now Central Bank Travellers Cheques in bigger denominations of Rs. 2,500/- and Rs. 5,000/-

mean more safety, more freedom

Central Bank has introduced travellers cheques in denominations of Rs.2,500 and Rs.5,000 in addition to their smaller denominations.

This ensures that you can keep or carry large amounts without running any risk.

Central Bank's travellers cheques are encashable at all branches of all nationalised banks as well as at reputed hotels, restaurants, department stores, shops and the railways.

Convert your cash to CBI's travellers cheques and enjoy more safety and freedom.

Central Bank of India

(A Government of India Undertaking)

Build a better life around us.

Interpub/CBI/6/83

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Multiweld Wire Company Private Limited

"EXPORT HOUSE"

Regd. Office Factory :

59, Marol Maroshi Road,
Marol,
Bombay-400 059 (India)
Telephones : 6320261/62/63, 6323502/03
Telegram : MULTIWELD
Telex : 011-71690 MLTI IN

Delhi Office :

GF-10, Hans Bhavan,
Bahadur Shah Zafar Marg,
New Delhi-110 002 (India)
Telephones : 267198, 261574
Telegram : WIREPRODS

Unit No. 2

Dheku Village,
Taluka Khalapur,
Dist. Raigad.

Manufacturers of :

Wire and Wire Products including MULTIWELD Electrically Welded Wire Fabrics made out of plain as well as Deformed Wires.

Available in sheets and rolls suitable for all types of protection and for concrete reinforcement.

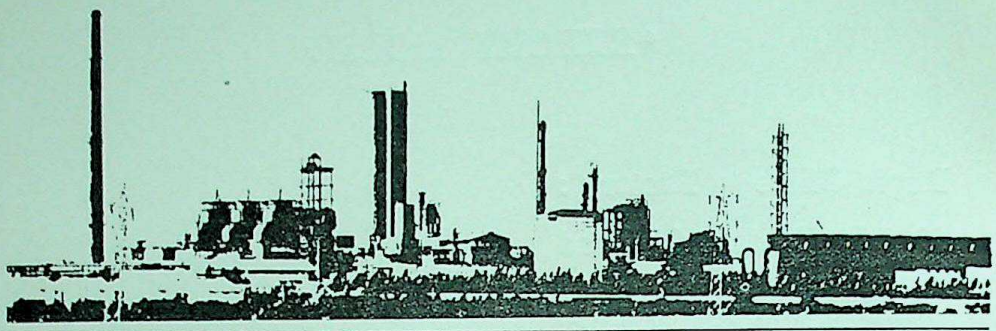
INDIA'S LARGEST MANUFACTURERS AND EXPORTERS OF WELDED WIRE MESH.

Adv. 27

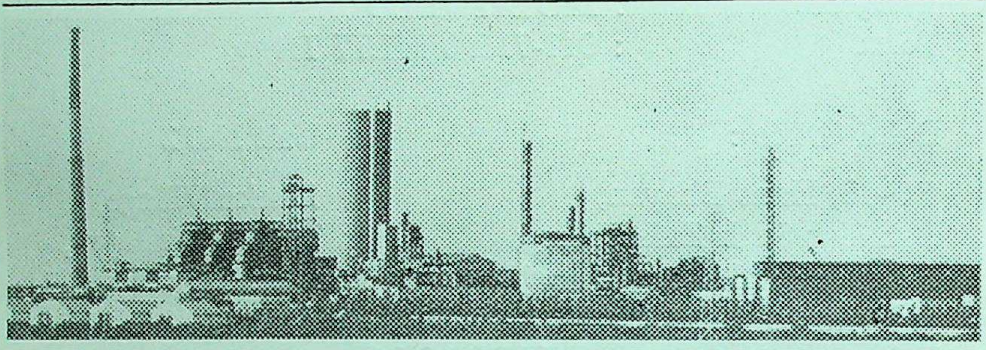
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GUJARAT NARMADA-The world's largest single stream Ammonia-Urea plant is also



the country's most unique Fertilizer plant



It has dramatically changed the industrial skyline in Gujarat. Promoted by the Government of Gujarat and Gujarat State Fertilizers Company, Gujarat Narmada, with its 4.60 lakh shareholders, is Asia's largest company in respect of public shareholding. 1,30 lakh investors are farmers and their co-operatives.

World renowned experts: Linde of West Germany, Texaco of USA, Haldor Topsoe of Denmark, BASF of West Germany and Snamprogetti of Italy have participated in its making. Based on a zero pollution concept, its electrostatic precipitators eliminate fly ash discharge, and a high stack of 125 metres, $1\frac{1}{2}$ times taller than Qutab Minar, ensures highest dispersion factor of pollutants, if any.

Going on stream in December, 1981 and into commercial production in July, 1982, the plant has a massive production capacity of 1350 tonnes of Ammonia and 1800 tonnes of Urea per day. This goes to the farm sector in Gujarat, Rajasthan, Madhya Pradesh, Punjab, Haryana and Uttar Pradesh. It helps in increasing food grain production by 28 lakh tonnes with an added income of Rs. 35 crores to the farmers.

Gujarat Narmada is already marketing its by product Liquid Nitrogen, Pure Sulphur recovered in its pollution control process, and surplus Ammonia, to industrial users. This results in a large saving of foreign exchange.

Gujarat Narmada plans ahead of today's needs, and many more projects are on the anvil.

Gujarat Narmada — a growth nucleus for the country.

Gujarat Narmada Valley Fertilizers Company Limited

Registered Office: P.O. Narmadanagar, 392 015 Dist. Bharuch, Gujarat

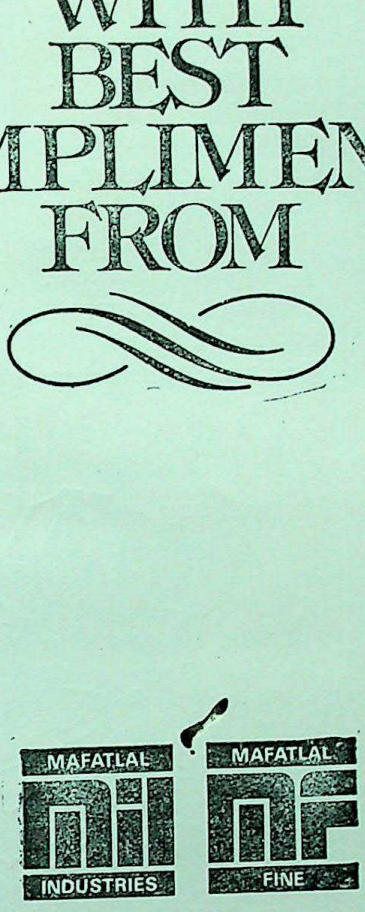
Shilpi 2 GN 12/82

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WITH
BEST
COMPLIMENTS
FROM



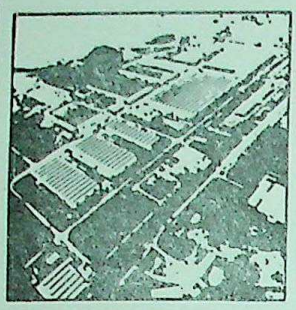
MAFATLAL INDUSTRIES LTD.

THE MAFATLAL FINE
SPG. & MFG. CO. LTD.

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BHARAT EARTH MOVERS LIMITED

One of Asia's biggest names in heavy earthmoving equipment.

Very much so. BEML has today become a name to reckon with. The second biggest manufacturer of heavy earthmoving equipment, after Japan, in Asia.

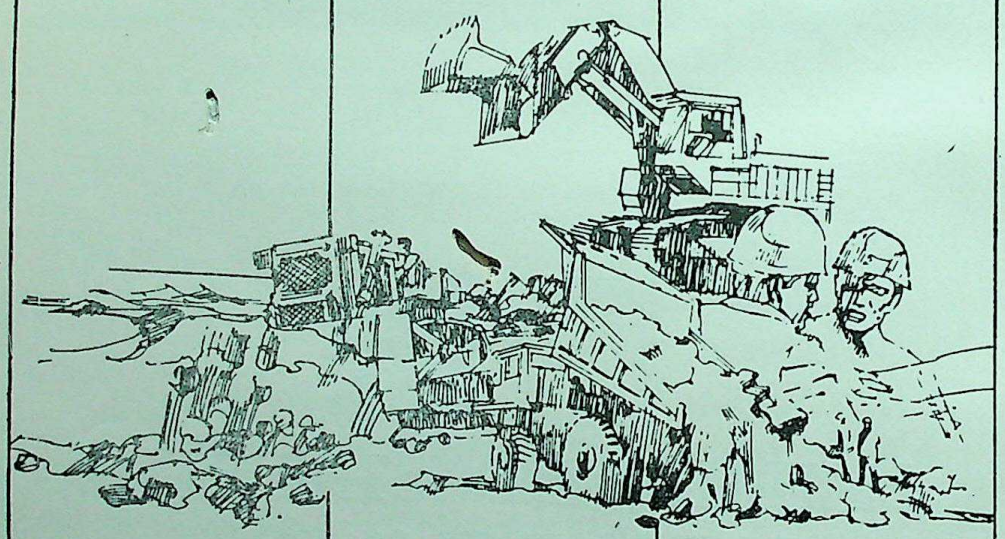
Not surprising when you come to know BEML. Todate nearly 16,000 of its products are in operation in India and all over the world. What's more, it offers the widest range of equipment in the world: Dozers, Dumpers, Excavators, Loaders, Scrapers, Graders, Trailers and Railcoaches.

BEML has made rapid strides over the years. Its Annual Sales Turnover touched the mark of Rs.3350 millions in 1982-83.

BEML. A Company very much on the move.

beml

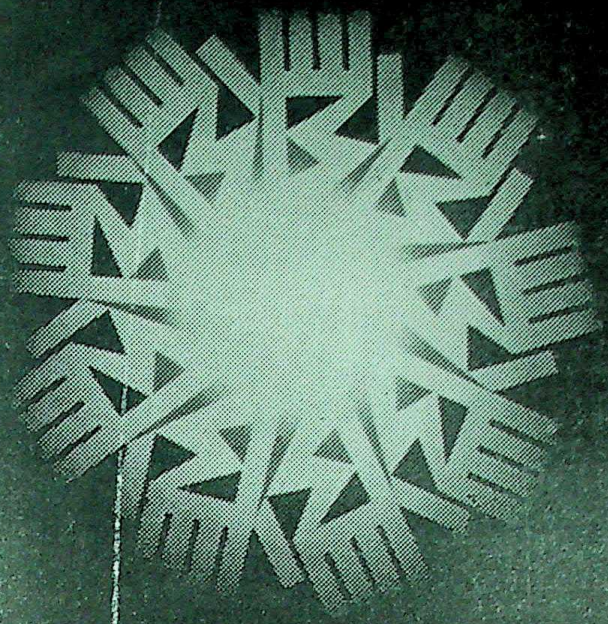
BHARAT EARTH MOVERS LTD.
Unity Buildings, J.C. Road
Bangalore 560 002, India.



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CROMPTON GREAVES— WHERE POWER IS.

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Our expertise and competence mean an extensive line of world class products and services. Our well-coordinated, precise manufacturing and testing facilities—the finest in the country—as well as our result-oriented Research & Development make for a high degree of technological excellence. Our vast experience gives us the capability to undertake project engineering and turnkey electrification assignments—regardless of their size. Above all, because Crompton Greaves is Crompton Greaves!

From power to productivity to progress

Crompton Greaves LIMITED

1, Dr. V. B. Gandhi Marg, Bombay 400 023

Motors • Alternators • D.G. Sets • Switchgear & Fusegear • Power & Distribution Transformers • Domestic, Industrial & Agricultural Pumpsets • Fans • Specialised Luminaires, Lighting Products & Fittings • Industrial Plugs & Sockets • Electrification Contracts • Exports

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When you first saw this advertisement, you were eleven years younger.

This advertisement introduced our new symbol. And expressed our commitment to you and the nation.

More than eleven years have passed in your life and ours. Our symbol reflects our achievements and aspirations. Our advances to the priority sector have grown from a mere Rs. 265 crores in 1971 to over Rs. 3200 crores in 1982. Our deposits, from Rs. 1502 crores to over Rs. 11,300 crores. Our offices from 2477 to over 6300.

We are more than a bank. We are a social institution, responsive to the needs of the times. And looking ahead to even closer ties with you.

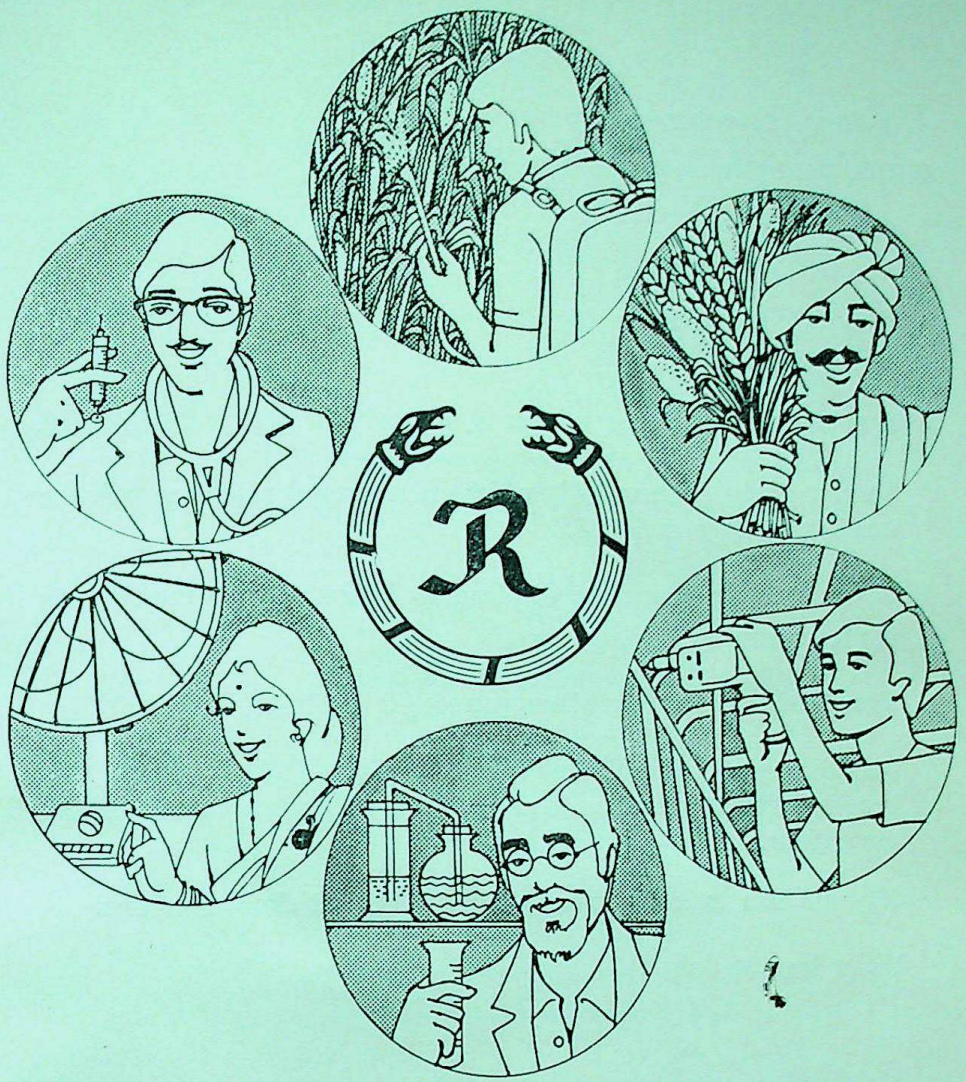
State Bank
Let's come closer

HTB-SBI-92/82

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Helping people in all walks of life

RALLIS

Multi-Technology Group

Fertilisers
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Units offer you
a unique package of benefits.

Only Units combine high returns with safety, easy encashability and tax benefits.

And there are plenty of plans tailored to suit your interests.

There's Unit Scheme '64' which is a general plan that offers a steadily growing dividend.

If you want to invest the dividend to increase your capital, join the Reinvestment Plan.

The Children's Gift Plan allows you to gift Units to kids.

And through the Unit Linked Insurance Plan (ULIP) you get the benefits of life insurance and accident insurance cover and tax exemptions.

If you'd like to know more about Units, just drop us a line.

We're here to help !

Unit Trust of India

Bombay ● Calcutta ● Madras

New Delhi ● Trichur ● Ludhiana ● Vijayawada

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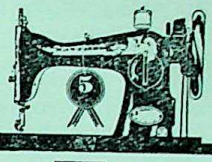
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SINGER*

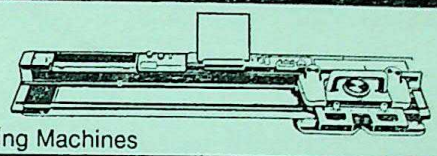
A name trusted by millions of housewives the world over.



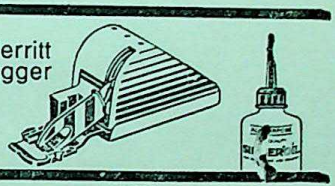
The SINGER* Range



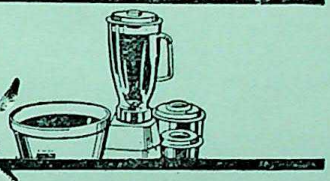
Sewing Machines



Knitting Machines



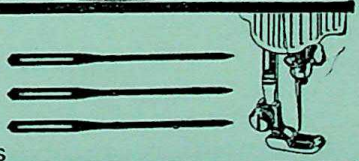
Merritt Zig-Zagger Sewing Machine Accessories



Lady Chef Food Processors



Electric Irons



Singer Needles

* A Trademark of THE SINGER COMPANY

Indian Sewing Machine Co. Ltd. (An affiliate of THE SINGER COMPANY) 207, D N Road, Bombay 400 001.

CHAITRA-SM-53*

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BANK RECRUITMENT
PROBATIONARY OFFICERS/CLERKS

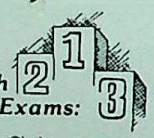
"Specialised Training in NSB Regular/Correspondence Courses has proved to be the guaranteed way to secure jobs in Banks as Probationary Officers & Clerks."
-says Editor, Citylight, Bombay.

If you have applied to State Bank of India or any Nationalised Bank Boards, for PO or Clerical Post, join our Course now.



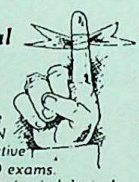
Banking: A Rewarding Career:

Nearly 2500 Probationary Officers are recruited every year by Banks in India. This avenue of direct recruitment as Probationary Officers in Banks offers a promising career for bright young people today. Any graduate between 21 and 28 years can apply for the post. The job brings a handsome remuneration, security of service and job satisfaction. The work content is rich and varied. And, after nationalisation, Bank jobs have acquired a new status, because now the Banks have taken upon themselves the responsibility of building a better India. Today, in our Banks, our social ideals find a dynamic expression. Bank jobs, therefore, offer the opportunity and challenge to participate in shaping our country's future.



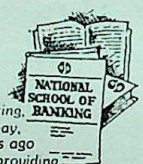
Selection on Merit through Competitive Exams:

When vacancies of Probationary Officers/Clerks are declared at intervals of almost every three months by one Bank or another, large numbers apply for them and appear for the intensely competitive exams based on general intelligence tests. Standards of evaluation are most rigorous and impartial. The percentage of success is lower than 0.5%. In 1979-80, from a total of 5½ lakh applicants, 2300 were taken as POs by Banks. Therefore, every single additional mark that you can get becomes important. A provenly competent, specialised and thorough coaching becomes a MUST.



Our Professional Commitment

We coach in regular Courses at Bombay, Pune and by POSTAL TUITION throughout India for objective and descriptive test of PO exams. All subjects—1) Reasoning (verbal, logical, non-verbal) (2) Quantitative Aptitude (3) General Awareness and Current Affairs (4) English Comprehension (5) Essays, letters, precis-writing—are covered exhaustively. Specialised practice books on all subjects covering thousands of typical and actual exam questions are supplied in the Course. These books are not sold to others.



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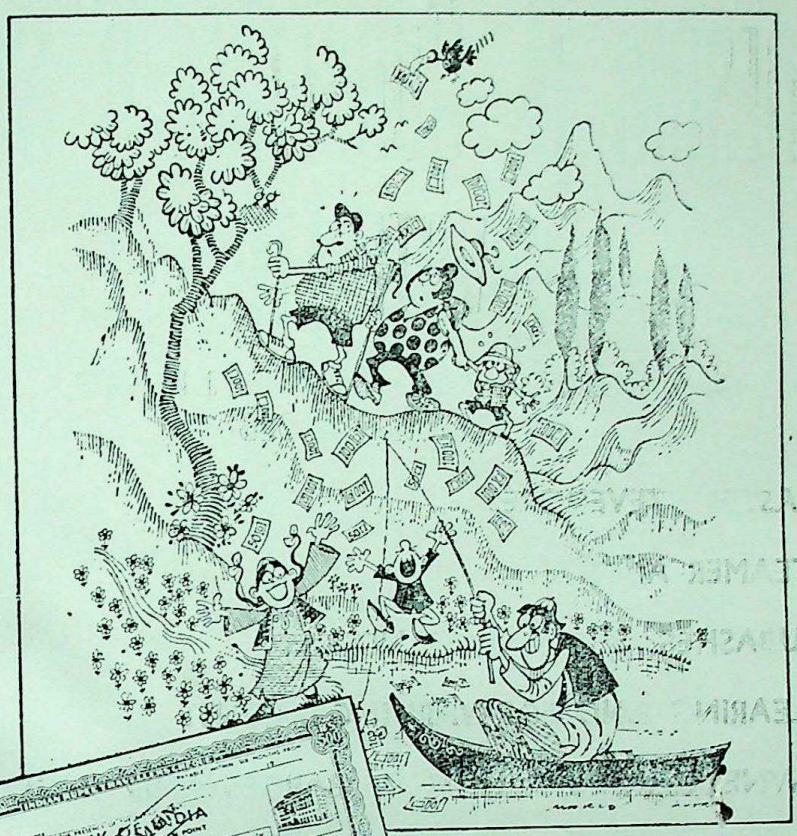
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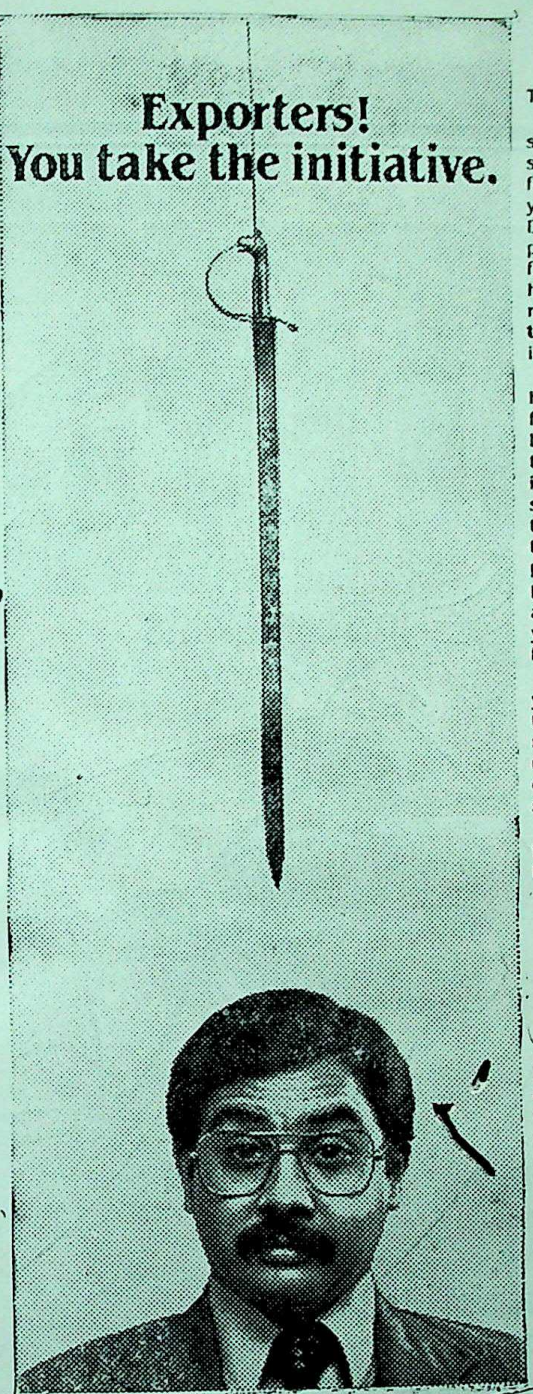
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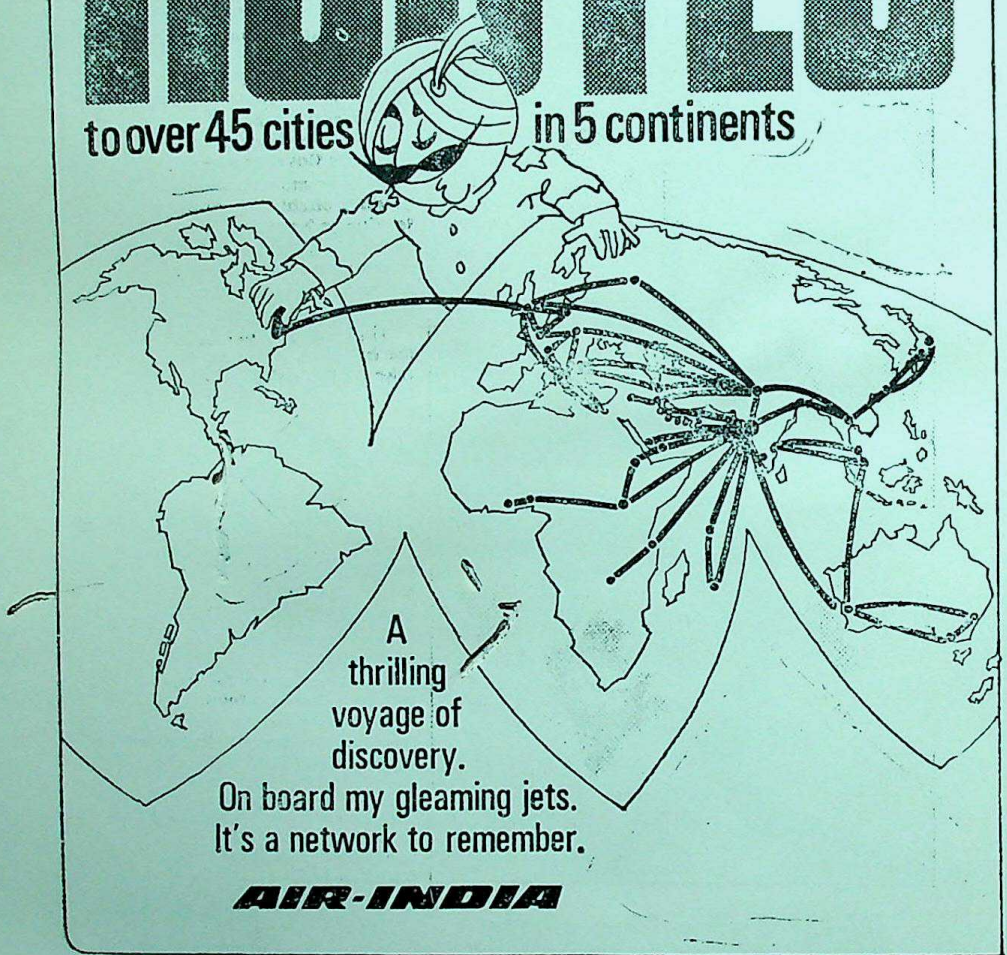
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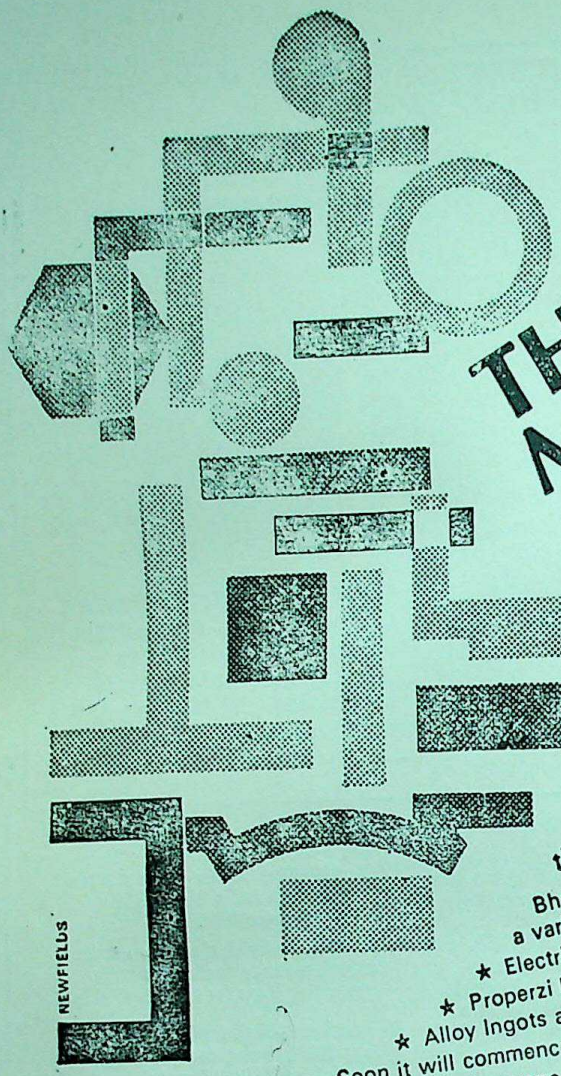
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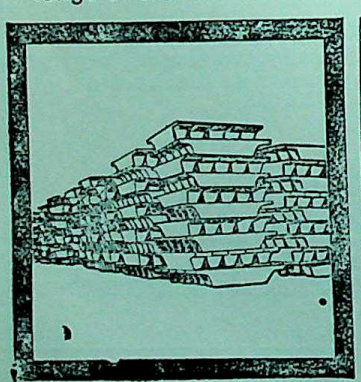
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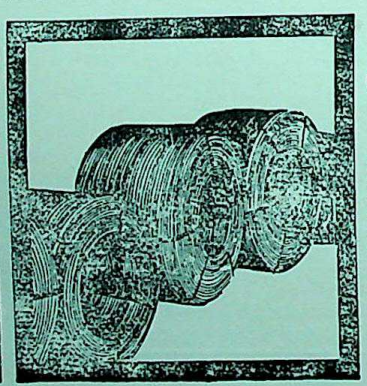
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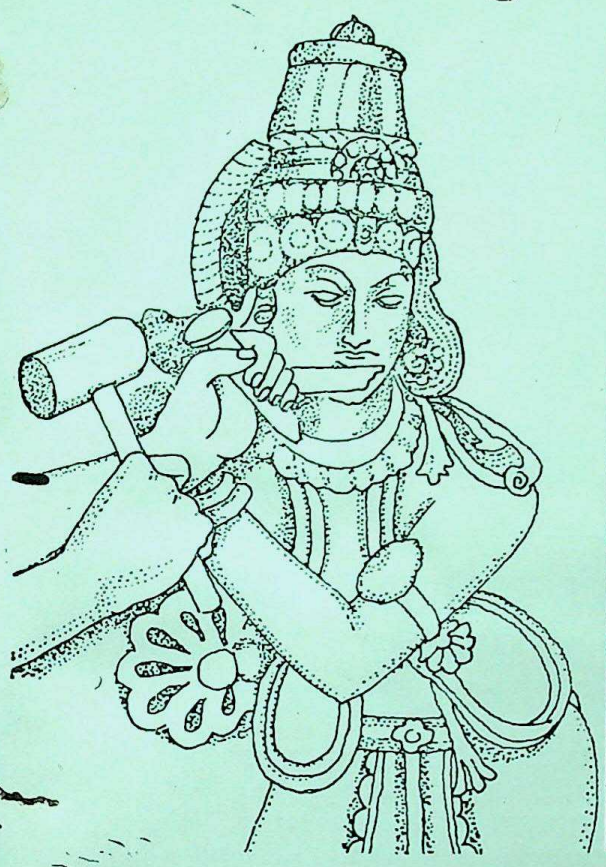
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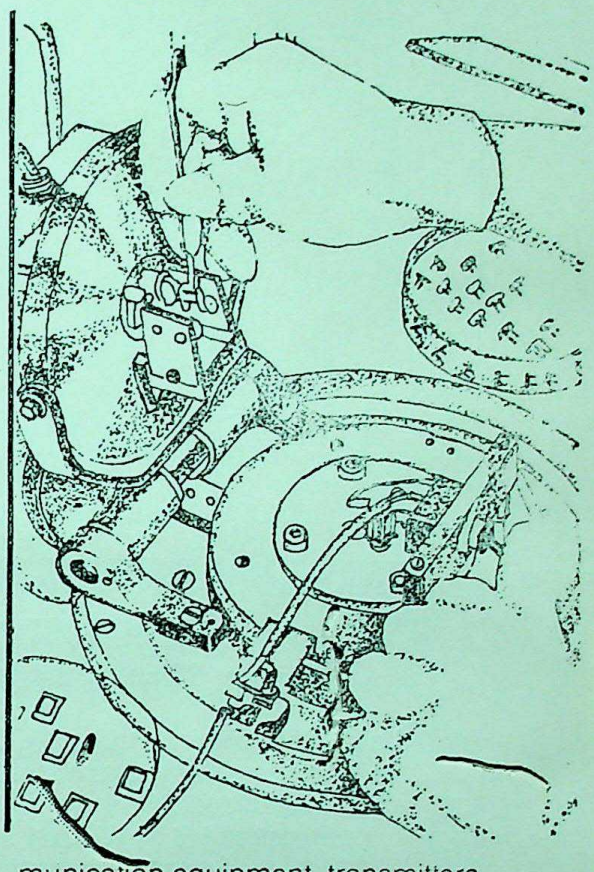
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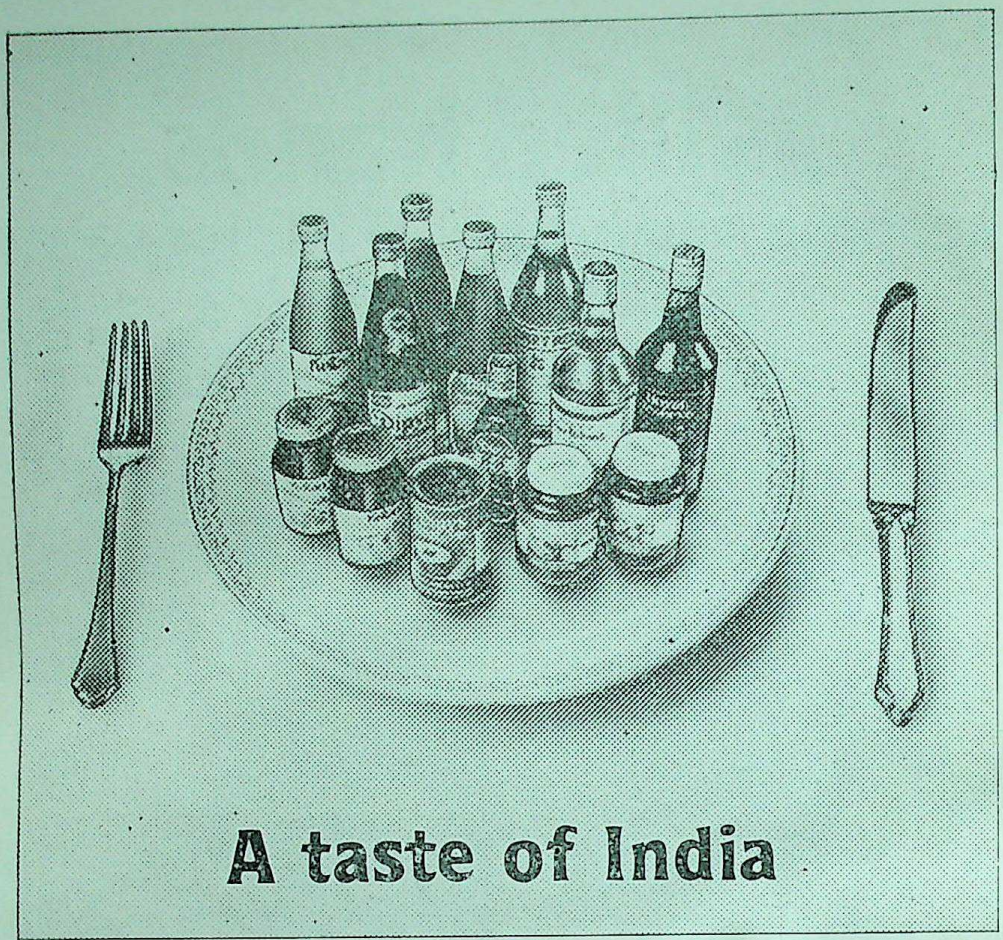
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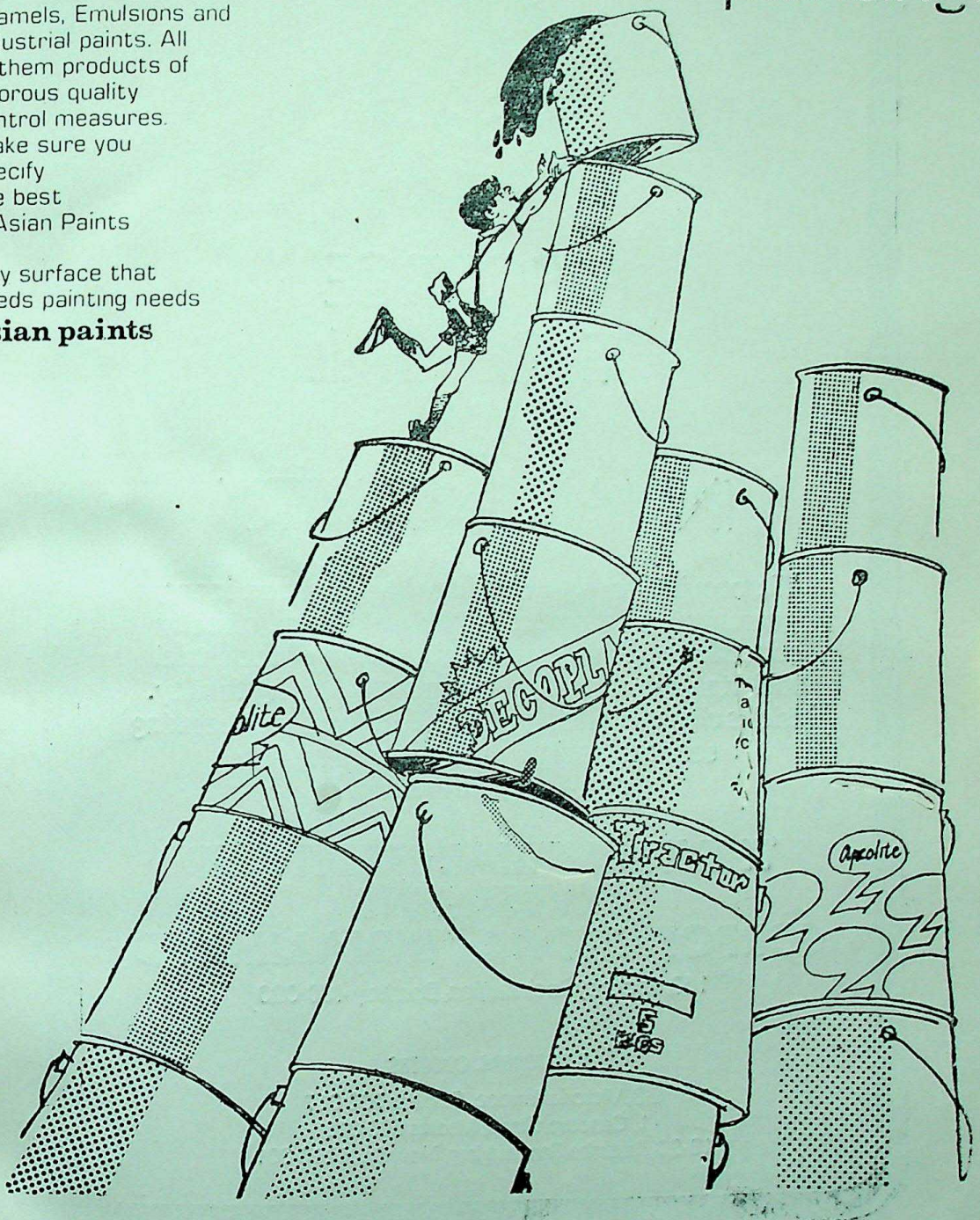
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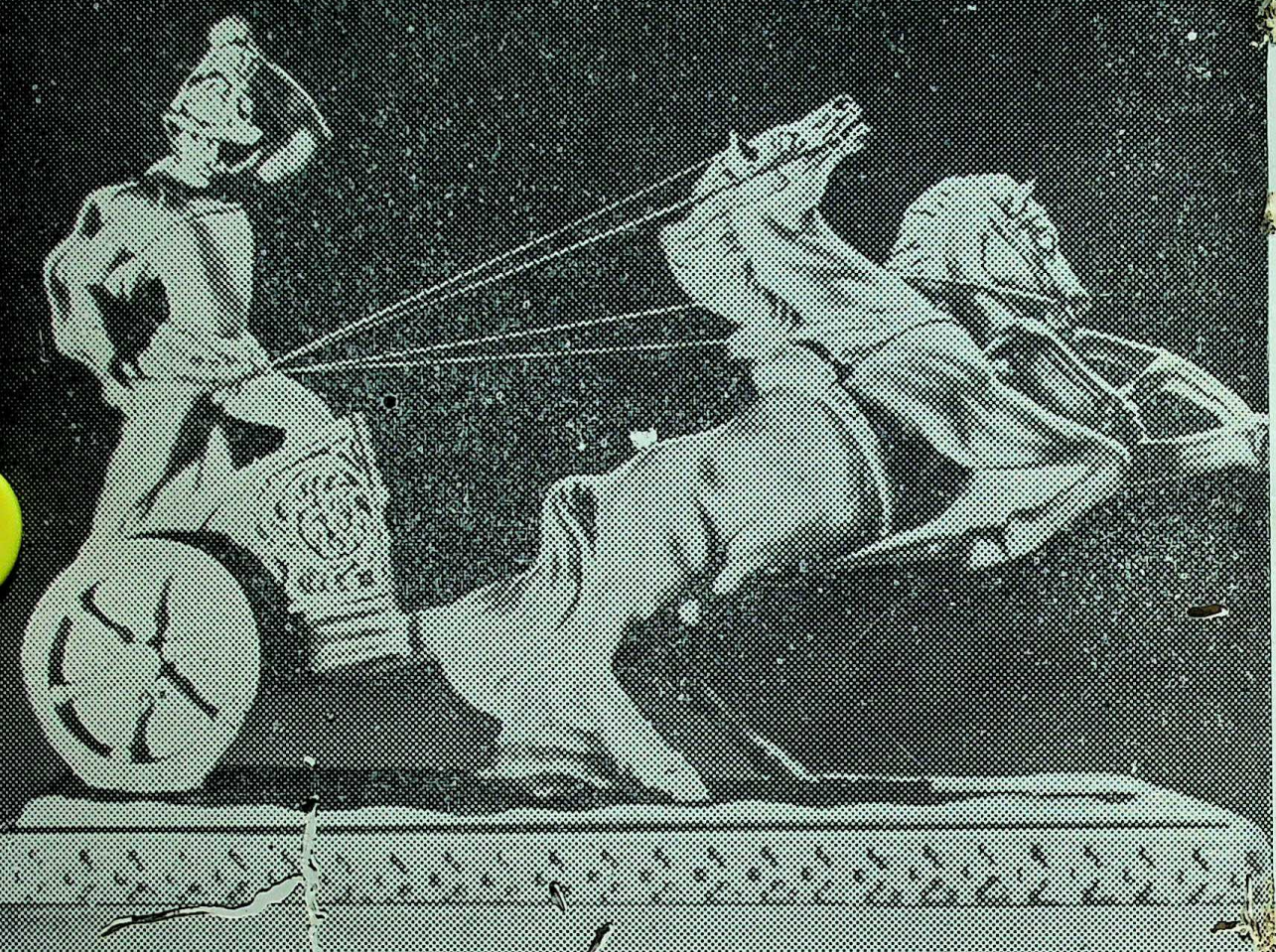
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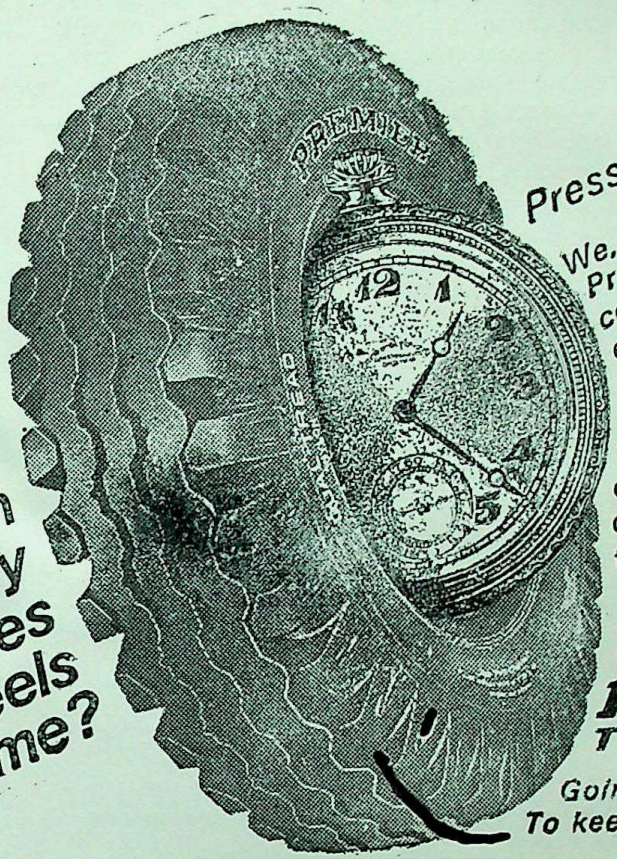
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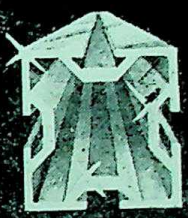
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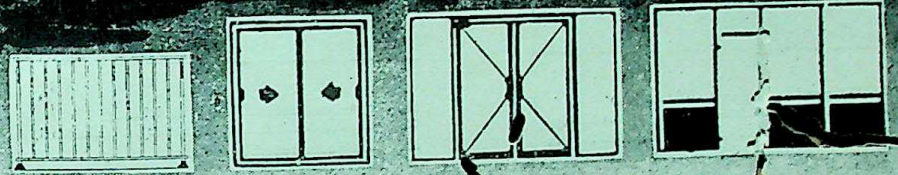
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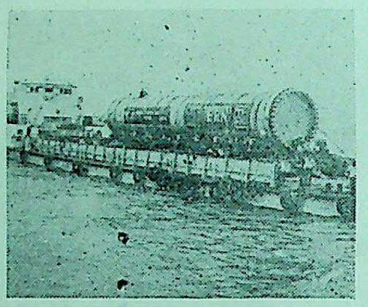
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During the last 28 years, NSIC has made significant contribution to the growth of small scale sector in India. It has helped in building up entrepreneurs in all parts of the country. It continues to do so and has ambitious programmes for growth of its activities. It now operates through Branch Offices at State level and has developed linkages with other concerned institutions.

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*Population growth in India worked out on the basis of 10 million new born babies per year.
Source: New Caxton Encyclopedia (1982)

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India gave the world the

decimal

Now—Software.

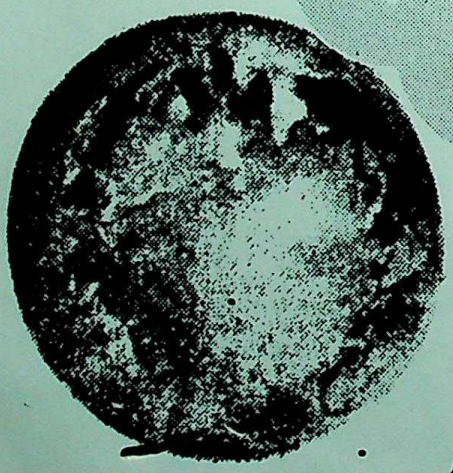
The Decimal System was a milestone in the history of mathematical thought. Centuries later came another milestone—the Computer. Powerful as it may be, the success of a Computer depends on the Software. With the phenomenal improvement in hardware capability the need for matching Software to fully exploit the hardware has never been greater.

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For over 35 crore people, we have a fresh perspective

— The New 20 Point Programme

With more than half the country's population involved in cooperative activities, NCDC is playing a key role. It is imperative that farmers be given remunerative prices for their produce, that they receive the necessary production inputs and daily consumer requirements at fair prices. Cooperatives are making strides and, this year, the value of agricultural produce handled by cooperatives is expected to cross Rs. 2300 crore. To attain this target, facilities for storage of agricultural produce and inputs at the village level are being created on a massive scale in 10 states under the EEC/World Bank assisted programmes.

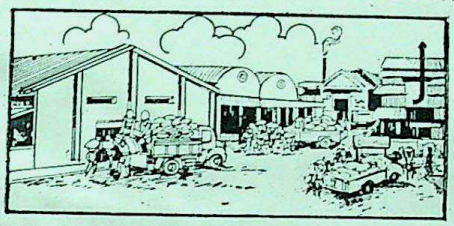
Another area of priority is increasing the production and processing of oil-seeds and pulses. Five integrated, large size, Soya Bean complexes are being set up, four in M.P. and one in U.P. Special incentives are being provided to pulse growers.

The cooperative sector is committed to make the productivity year a success. **Cooperative sugar factories have utilised 130 per cent of their installed capacity,** and similarly, **cooperative spinning mills have shown a record performance of 83 per cent.**

Programmes are also on hand to invest Rs. 6 crore this year on cooperatives of Scheduled Castes, Scheduled Tribes and other weaker sections. Tribals, fishermen, weavers and lakhs of others belonging to the hitherto deprived sections of society will directly derive benefits from these programmes. So far, NCDC has invested nearly Rs. 26 crore for their betterment. Similarly, the newly set up Jute Industrial and Marketing Cooperative of India Ltd. has immense potential for millions of farmers connected with this industry. They can now look forward to a fair deal. And, while talking of priorities, we haven't forgotten students, who will be provided finance for their Cooperative Stores which will meet most of their needs

NCDC has already invested over Rs. 500 crore in cooperatives. With so many programmes on hand, our claim of taking the New 20 Point Programme to the rural masses of India will stand the test of time.

NCDC—Moving towards evenly spread rural prosperity









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MAHARASHTRA ELECTRONICS CORPORATION LIMITED

BY N. JAYARAMAN
Managing Director

MAHARASHTRA ELECTRONICS CORPORATION LIMITED (MELTRON) was set up in 1978 by the Government of Maharashtra and in the last five years MELTRON has made rapid strides. MELTRON has been able to develop strong capabilities in manufacturing and marketing of professional electronic products. This is clearly reflected from the fact that it has already set up manufacturing projects for Power Semiconductor Devices and Power Electronic Equipments at Nasik, Professional Tape Recorders, Audio Visual Systems and Power Electronics at Andheri and the other projects which are coming up as per schedule are for manufacture of transreceivers and Radio Link Equipment at Nagpur, Non-destructive Test Instruments and Micro Prosessor Based system at Kudal and EPABX/ EPAX Systems at Aurangabad. It has also been entrusted with the management of Electronics Test & Development Centre at Pune by Government of Maharashtra and as a part of the STQC Programme of Department of Electronics, Government of India.

MELTRON has been marketing a range of electronic products of both of its own manufacture and those of small and medium scale units which are associates of MELTRON and which are located in different parts of Maharashtra. Apart from marketing standard products MELTRON has also been in the business of supplying custom built equipment for specific customers' needs as well as total system engineering and turnkey projects for different customers. In this regard some of the examples of items is supplied include Closed Circuit Television (CCTV) for Bangalore Turf Club, Professional Recording Studio for Tirumalai Tirupati Devasthanam, Fire Alarm System for Vigyan Bhavan and three stadia for the Asian Games, and Message Switching System for Civil Aviation, Bombay Airport, Road Traffic Signalling System for different cities, etc. Meltron Semiconductor Ltd., has developed auto diodes and round disc avalanche diodes for use in electrostatic precipitators.

The most important element which has contributed to the successful manufacture and marketing activities of MELTRON is in regard to the excellent manpower capabilities. In MELTRON's corporate office, there is a New Projects Division which is staffed by electronics engineers who have total awareness of the various procedures of Government including acquisition of letters of intent, industrial licence, import licence for capital goods, raw materials, etc. There are six marketing divisions at the Corporate Office covering different sectors of electronics.

A project for the manufacture of two way radio communication systems including mobile transreceivers and radio link equipment predominantly to meet the increasing applications of Police, Public Transport, including Railways, Utilities, Paramilitary forces, etc. has been set up MELTRON has a collaboration with M/s. BBC of Switzerland and the project is coming up in a developing area, namely Nagpur. It is expected that commercial production will start sometime in June, 1983 and it is expected to fulfil the role of supplier of essential items viz., radio communication systems to wide spectrum of users in the country.

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